SAMSUNG

GSM TELEPHONE

GT-S5750E/S5753E Common

SERVICE Manual

GSM TELEPHONE

CONTENTS

SAMSUNG ELECTRONICS

GSPN (Global Service Partner Network)

Country	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com

2010. 10. Rev.1.0

2. Specification

2-1. GSM General Specification

	GSM850 Phase 1	EGSM 900 Phase 2	DCS1800 Phase 1	PCS1900	WCDMA 2100	WCDMA900
Freq. Band[MHz] Uplink/Downlink	824~849 869~894	880~915 925~960	1710~1785 1805~1880	1850~1910 1930~1990	1922~1977 2112~2167	880~915 925~960
ARFCN range	128~251	0~124 & 975~1023	512~885	512~810	UL:9612~9888DL:10562~10838	UL:2712~2863,DL:2937~ 3088
Tx/Rx spacing	45MHz	45MHz	95MHz	80MHz	190MHz	45MHz
Mod. Bit rate/ Bit Period	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	270.833kbps 3.692us	3.84Mcps	3.84Mcps
Time Slot Period/Frame Period	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	576.9us 4.615ms	FrameLength: 10ms Slotlength: 0.667ms	FrameLength: 10ms Slotlength: 0.667ms
Modulation	0.3GMSK	0.3GMSK	0.3GMSK	0.3GMSK	QPSKHQPSK	QPSKHQPSK
MS Power	33dBm~5dBm	33dBm~5dBm	30dBm~0dBm	30dBm~0dBm	24dBm~-50dBm	24dBm~-50dBm
Power Class	5pcl ~ 19pcl	5pcl ~ 19pcl	0pcl ~ 15pcl	0pcl ~ 15pcl	3(max+24dBm)	3(max+24dBm)
Sensitivity	-102dBm	-102dBm	-100dBm	-100dBm	-106.7dBm	-106.7dBm
TDMA Mux	8	8	8	8	8	8
Cell Radius	35Km	35Km	2Km	2Km	2Km	2Km

2-2. GSM Tx Power Class

TX Power control level	GSM850
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

TX Power control level	EGSM900
5	33±2 dBm
6	31±2 dBm
7	29±2 dBm
8	27±2 dBm
9	25±2 dBm
10	23±2 dBm
11	21±2 dBm
12	19±2 dBm
13	17±2 dBm
14	15±2 dBm
15	13±2 dBm
16	11±3 dBm
17	9±3dBm
18	7±3 dBm
19	5±3 dBm

TX Power control level	DCS1800
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

TX Power control level	PCS1900
0	30±3 dBm
1	28±3 dBm
2	26±3 dBm
3	24±3 dBm
4	22±3 dBm
5	20±3 dBm
6	18±3 dBm
7	16±3 dBm
8	14±3 dBm
9	12±4 dBm
10	10±4 dBm
11	8±4 dBm
12	6±4 dBm
13	4±4 dBm
14	2±5 dBm
15	0±5 dBm

3. Operation Instruction and Installation

Main Function

- **Bada OS**
- **HSDPA 3.6 900(option)/2100MHz**
- **EDGE Quad Band (D/L only)**
- **3.2'' WQVGA, TFT 262K**
- **3M FF Camera + Video Rec.**
- **Wi-Fi / BT v3.0 + EDR / USB v2.0**
- **A-GPS**
- **FM Radio with RDS + Rec.**
- **TouchWiz 3.0 UI / Dolfin Browser / Social Hub / DNSe**
- **80MB internal memory / microSD (up to 16G)**
- **1200mAh standard Battery**

6. Level 1 Repair

6-1-1. Pre-requsite for S/W Downloading

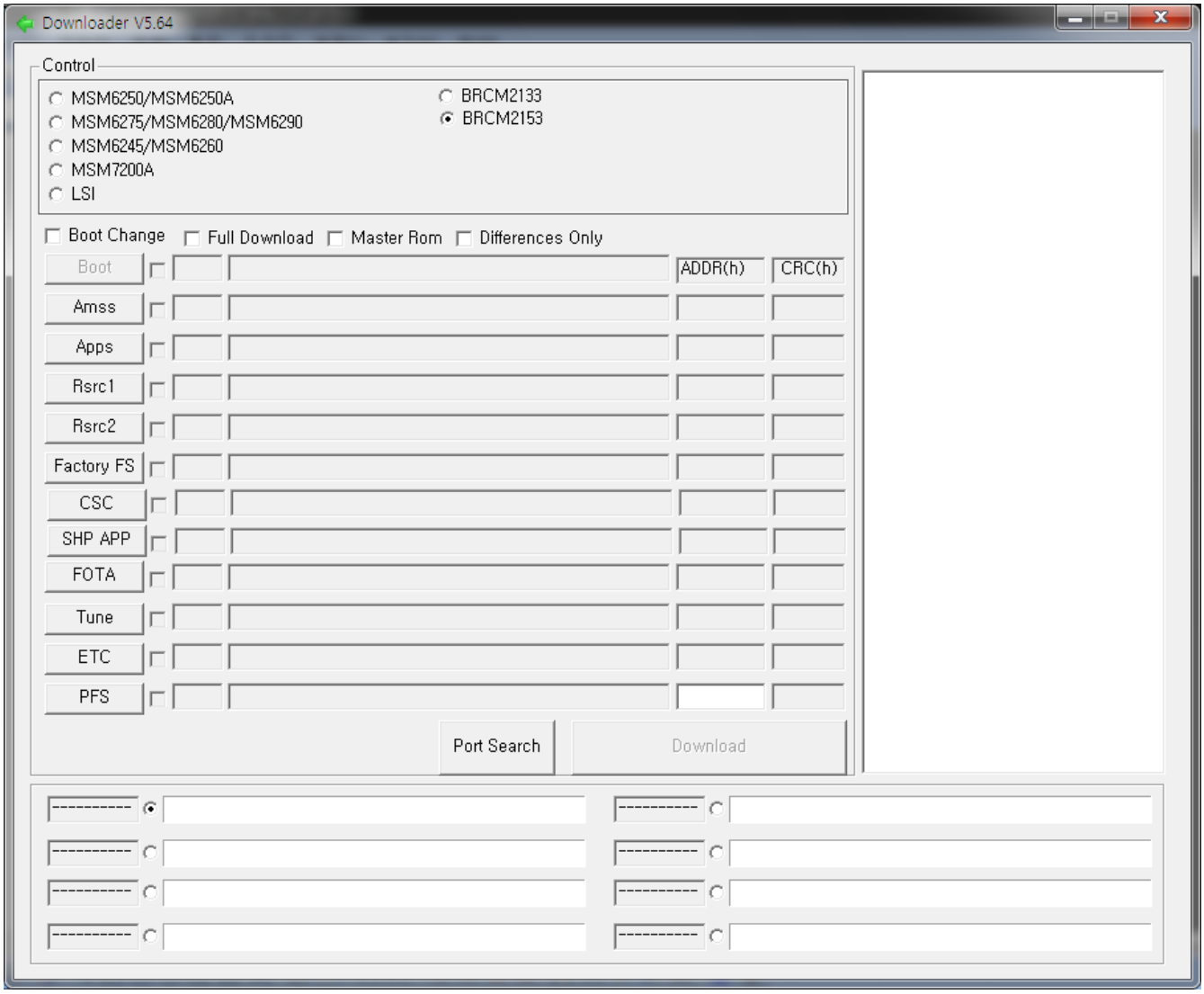
- Downloader Program(**Flash loader 7.2.4 SEC 2.4 Lite And Slave 0.4**)
- GT-S5750E mobile Phone
- Data Cable
- JIG BOX (GH99-36900A)
- RF Test Cable (GH39-00985A)
- JIG Cable (GH39-01339A)
- Adapter (GH99-38251A)
- Binary files

⁀ Settings

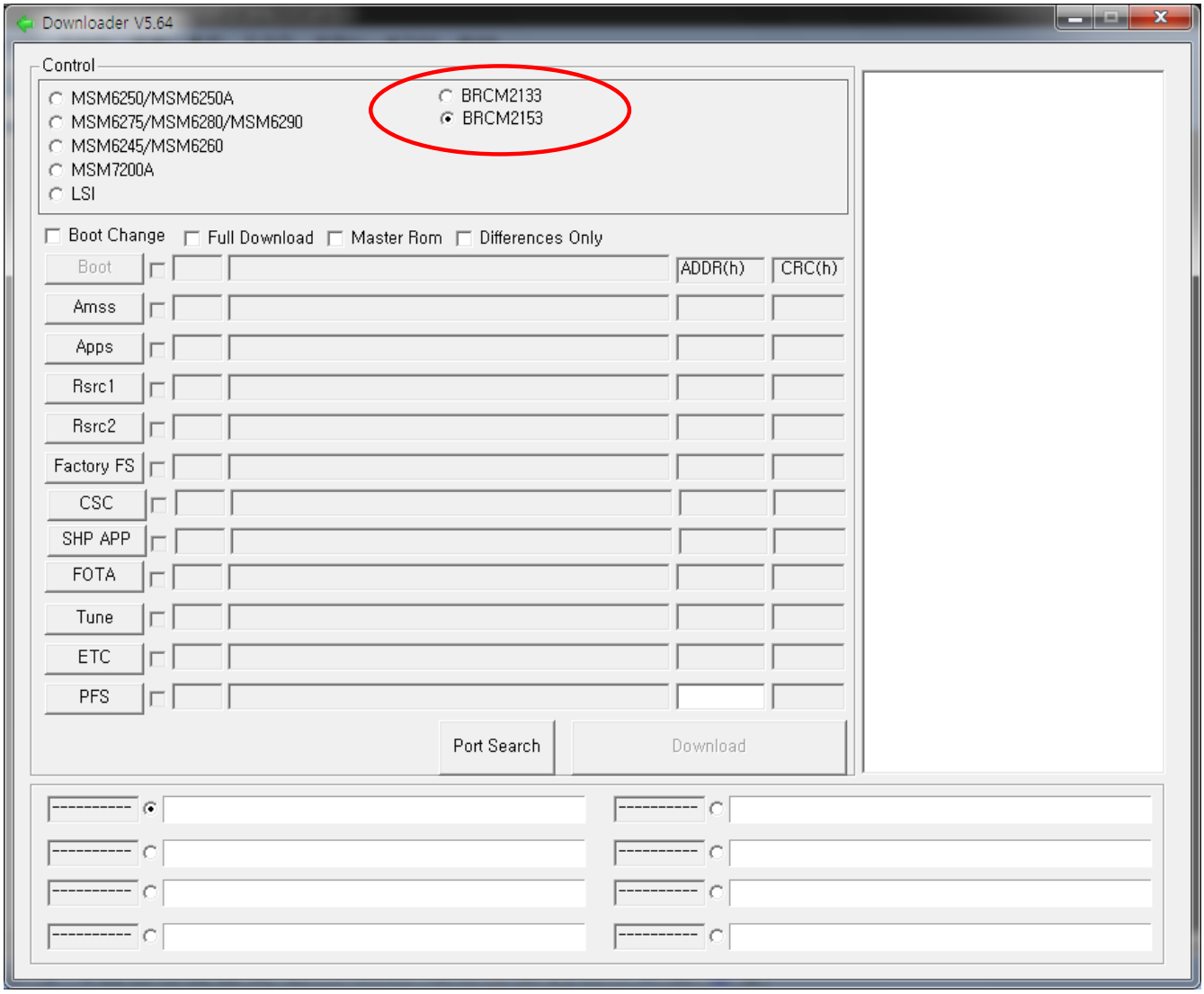
Connect to the computer by USB cable

6-1-2. S/W Downloader Program

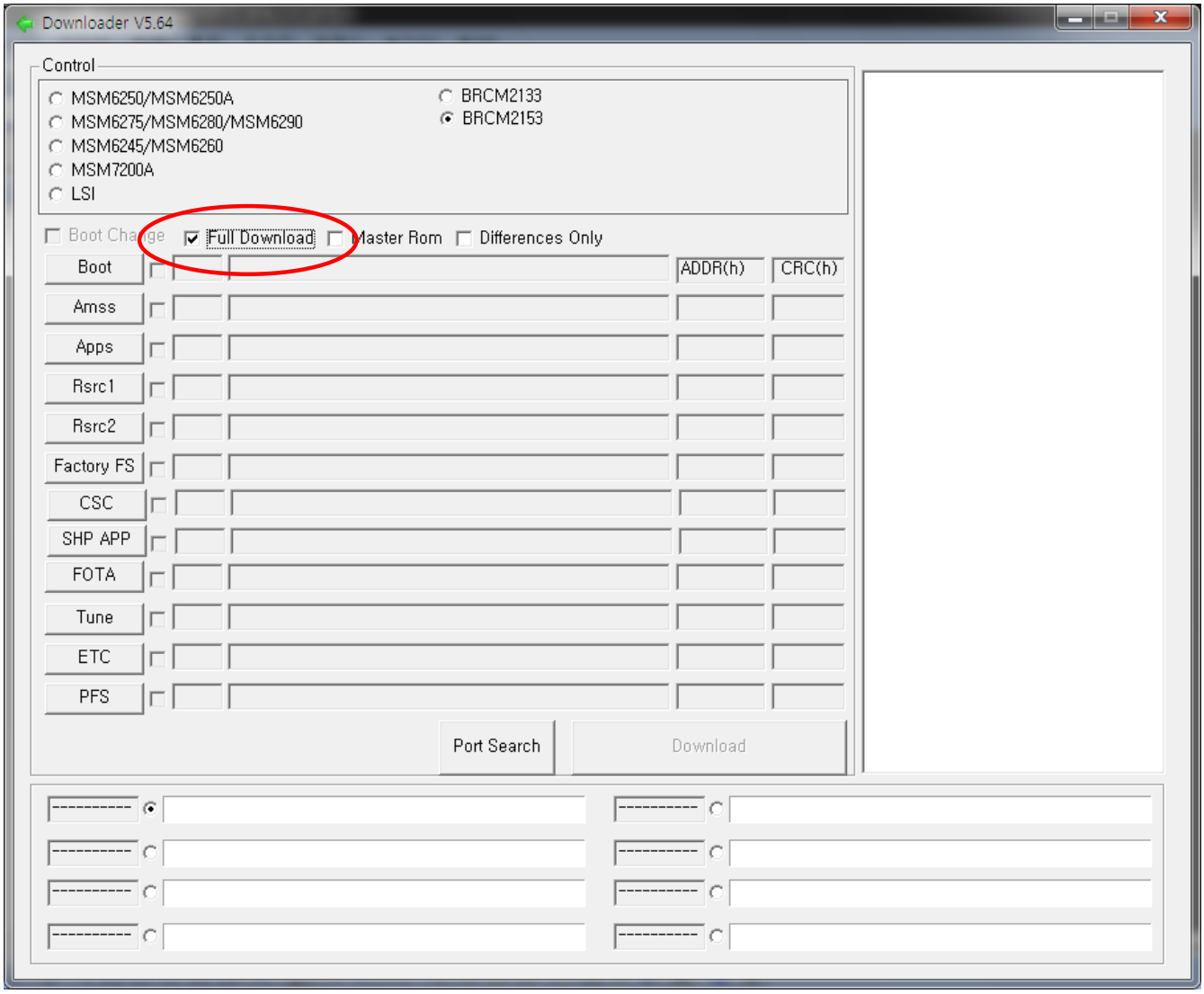
↜ **1.** Load the binary download program by executing the "**Downloader V5.64**"



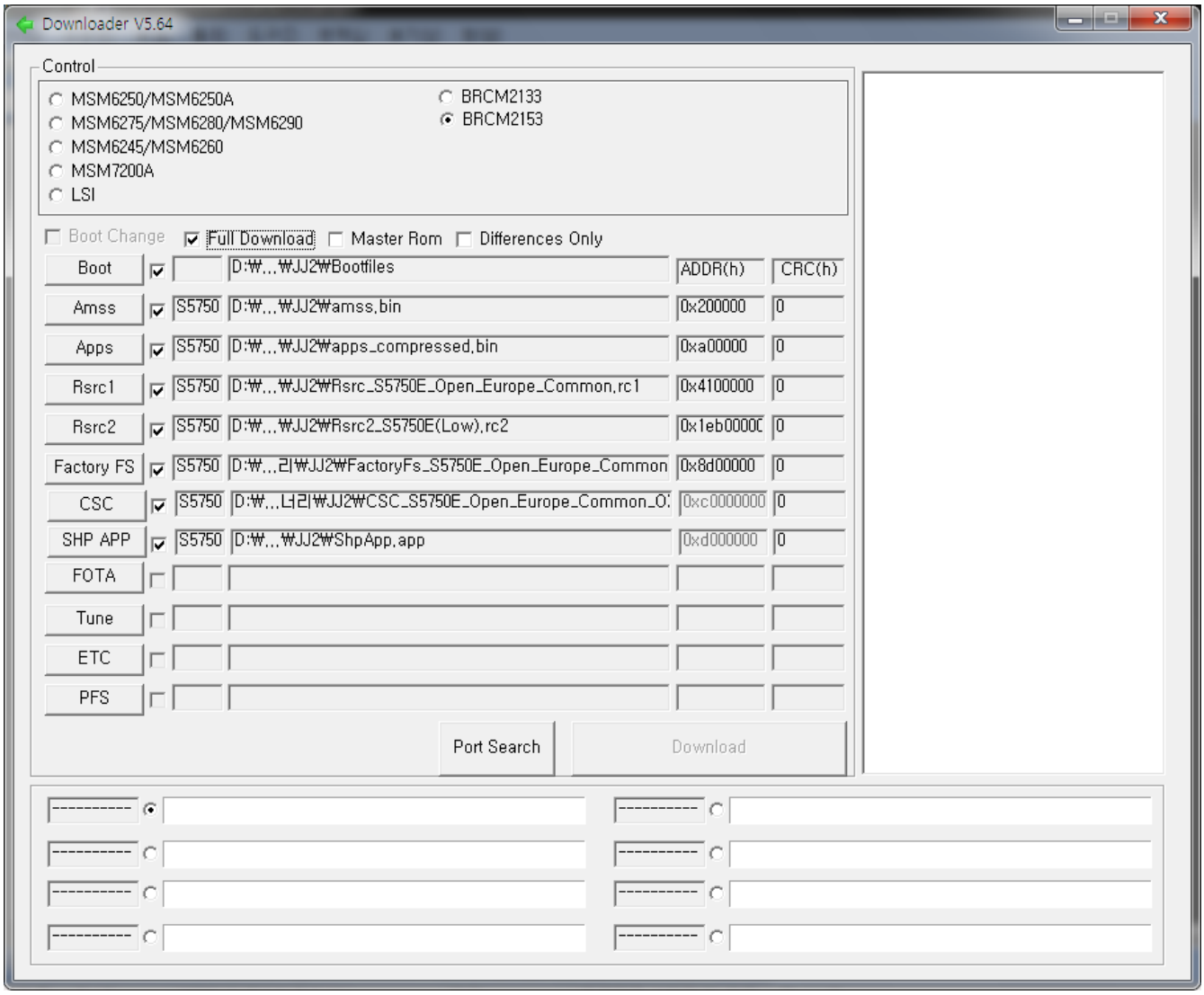
2. Select the **"BRCM2153"**. as Control.



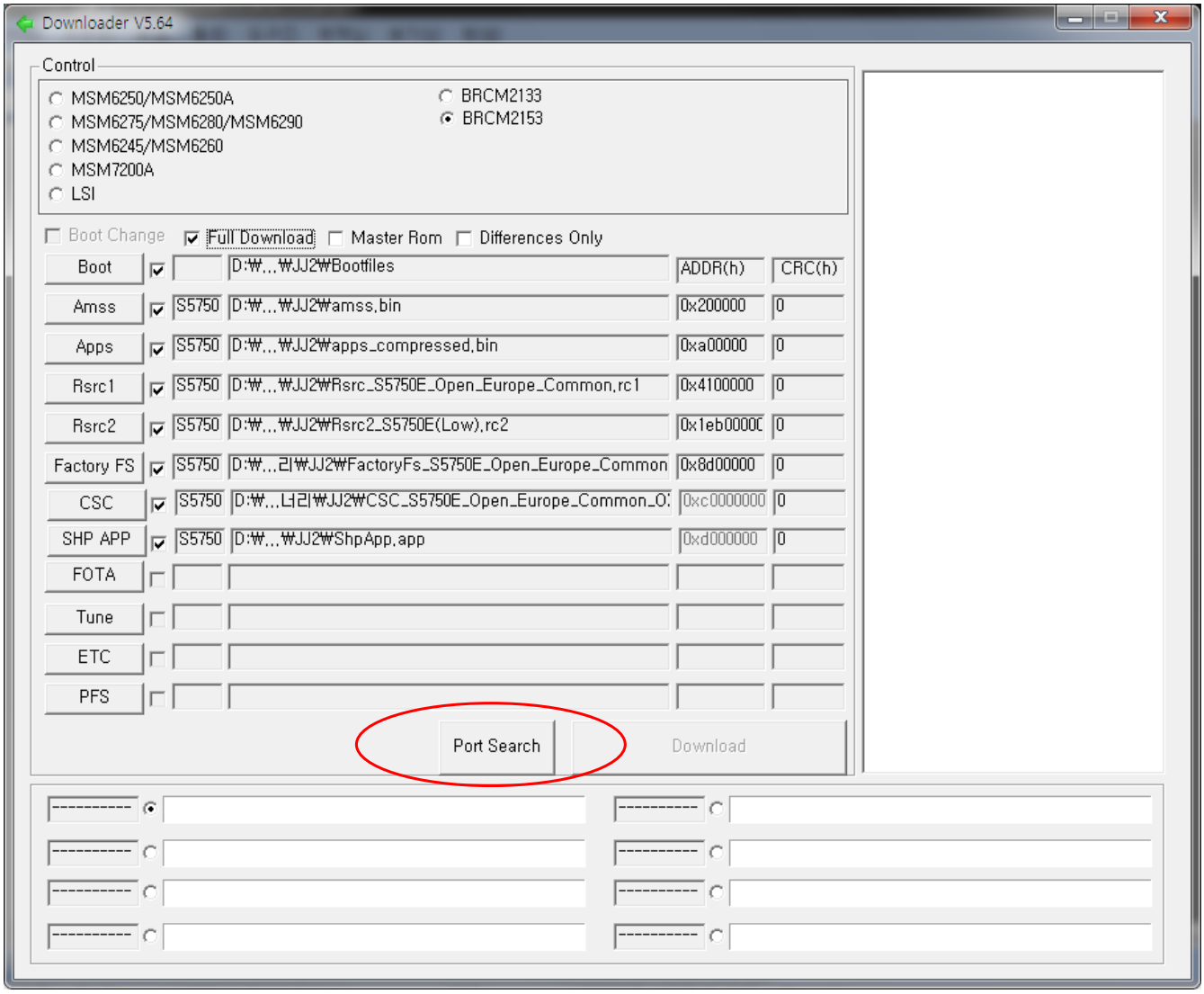
3. Select the Full Download.



4. Load the file of Boot, Amss, Apps, Rsrc 1. Rsrc2, Factory FS, CSC, SHP APP from the folder that you saved the binary files.

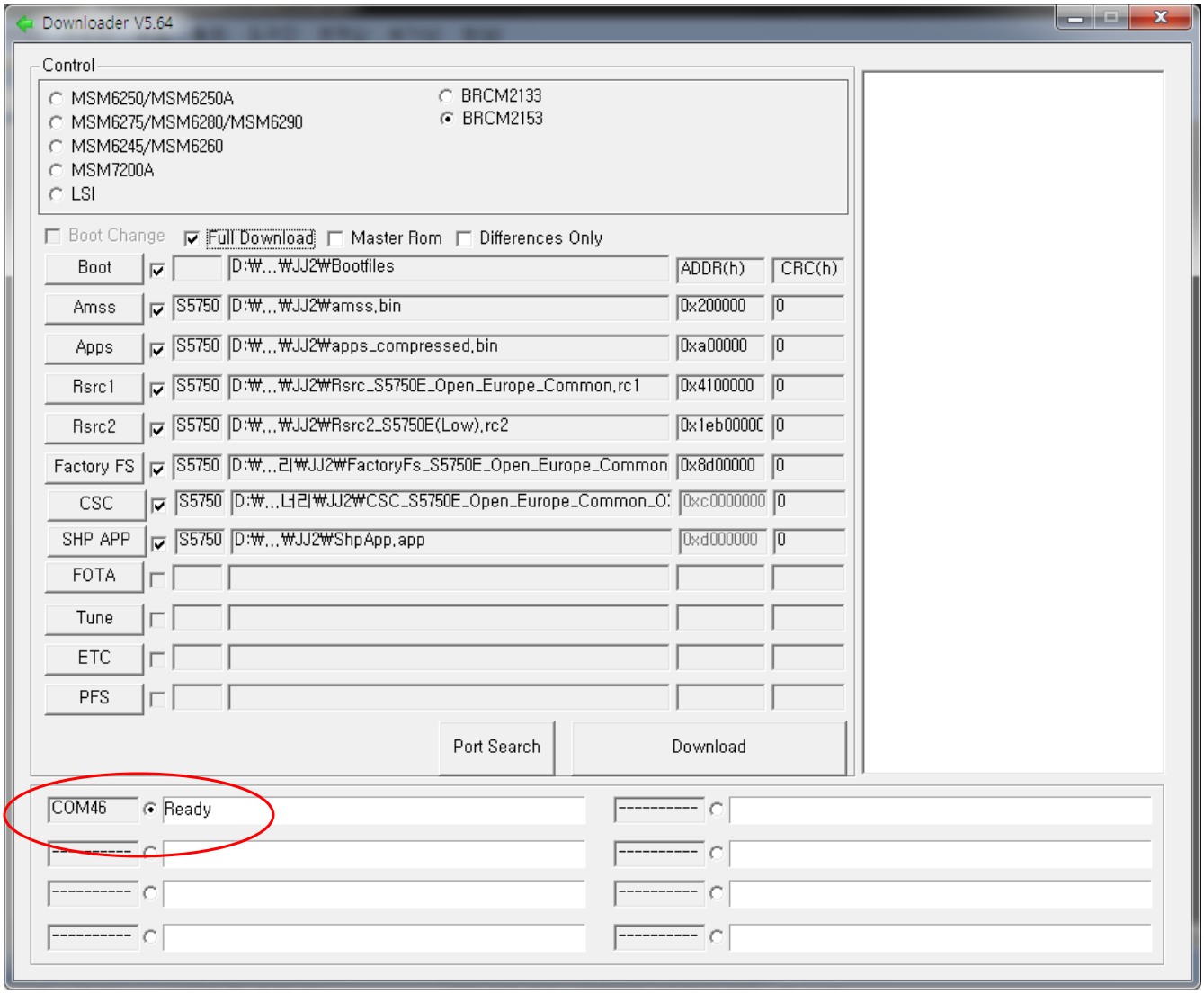


5. Click the **Port Search** button when the download cable is connected to PC.

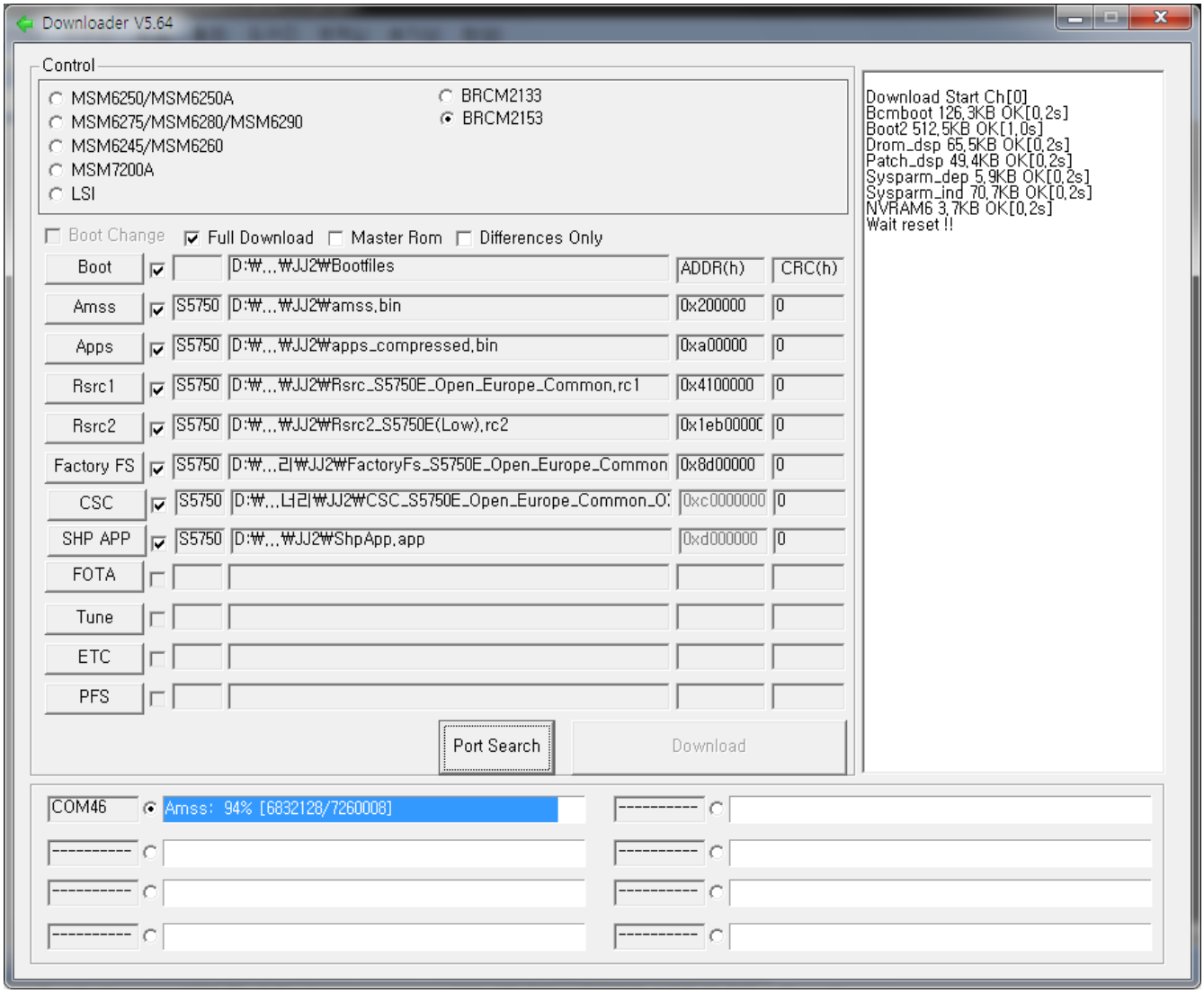


cf. You have to set the phone as a download mode by pressing Volume UP + Camera + POWER key simultaneously before connecting to PC .

6. Then the down loader can search the port.



7. Click the **Download** button when the Port searched.
It will start to download.



8. When downloading is finished successfully, there is a "All files complete" message.

9. Reference Abbreviate

Reference Abbreviate

- **AAC**: Advanced Audio Coding.
- **AVC** : Advanced Video Coding.
- **BER** : Bit Error Rate
- **BPSK**: Binary Phase Shift Keying
- **CA** : Conditional Access
- **CDM** : Code Division Multiplexing
- **C/I** : Carrier to Interference
- **DMB** : Digital Multimedia Broadcasting
- **EN** **:** European Standard
- **ES** **:** Elementary Stream
- **ETSI**: European Telecommunications Standards Institute
- **MPEG**: Moving Picture Experts Group
- **PN** : Pseudo-random Noise
- **PS** : Pilot Symbol
- **QPSK**: Quadrature Phase Shift Keying
- **RS** : Reed-Solomon
- **SI** : Service Information
- **TDM** : Time Division Multiplexing
- **TS** **:** Transport Stream

1. Safety Precautions

1-1. Repair Precaution

- Repair in Shield Box, during detailed tuning. Take specially care of tuning or test, because specipicty of cellular phone is sensitive for surrounding interference(RF noise).

- Be careful to use a kind of magnetic object or tool, because performance of parts is damaged by the influence of magnetic force.

- Surely use a standard screwdriver when you disassemble this product, otherwise screw will be worn away.

- Use a thicken twisted wire when you measure level.
  A thicken twisted wire has low resistance, therefore error of measurement is few.

- Repair after separate Test Pack and Set because for short danger (for example an overcurrent and furious flames of parts etc) when you repair board in condition of connecting Test Pack and tuning on.

- Take specially care of soldering, because Land of PCB is small and weak in heat.

- Surely tune on/off while using AC power plug, because a repair of battery charger is dangerous when tuning ON/OFF PBA and Connector after disassembling charger.

- Don't use as you pleases after change other material than replacement registered on SEC System. Otherwise engineer in charge isn't charged with problem that you don't keep this rules.

1-2. ESD(Electrostatically Sensitive Devices) Precaution

Several semiconductor may be damaged easily by static electricity. Such parts are called by ESD (Electrostatically Sensitive Devices), for example IC,BGA chip etc. Read Precaution below.
You can prevent from ESD damage by static electricity.

- Remove static electricity remained your body before you touch semiconductor or parts with semiconductor. There are ways that you touch an earthed place or wear static electricity prevention string on wrist.

- Use earthed soldering steel when you connect or disconnect ESD.

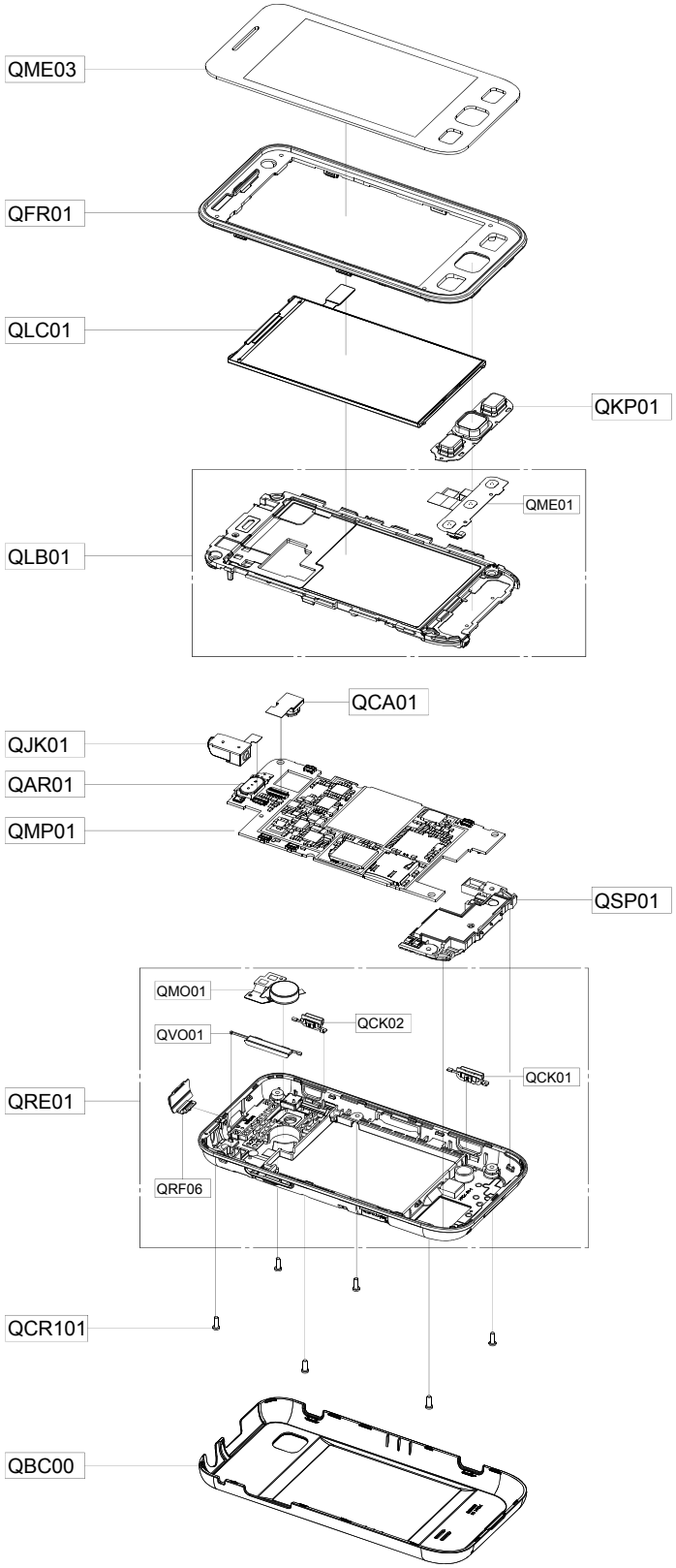
- Use soldering removing tool to break static electricity. , otherwise ESD will be damaged by static electricity.

- Don't unpack until you set up ESD on product. Because most of ESD are packed by box and aluminum plate to have conductive power,they are prevented from static electricity.

- You must maintain electric contact between ESD and place due to be set up until ESD is connected completely to the proper place or a circuit board.

4. Exploded View and Parts List

4-1. Cellular phone Exploded View



4-2. Cellular phone Parts list

Design LOC		Description	SEC CODE
QAR01		AUDIO-RECEIVER	3009-001499
QCR101		SCREW-MACHINE	6001-002005
QJK01		KEY FPCB-EARJACK ASSY(GT_S5250)	GH59-09640A
QME03		TOUCH/PANEL-GT_S5250	GH59-09672A
QSP01		MODULE-SPK+INT(GT-S5750E)	GH59-10394A
QMP01		A/S ASSY-PBA MAIN(COMM) S5750E,NEE,SVC	GH82-05313A
QCA01		ASSY CAMERA-MODULE,3M(GT_S5250)	GH96-04935A
QLC01		ASSY LCD-3.2",WQVGA(GT-S5750E)	GH96-04963A
QFR01		ASSY CASE-FRONT	GH98-17542A
QBC00		ASSY COVER-BATT	GH98-17544A
QKP01		ASSY KEYPAD-MAIN	GH98-17546A
QLB01		ASSY BRACKET-LCD 3G	GH98-18402A
	QME01	KEY FPCB-MAIN KEY PBA(GT_S5250)	GH59-09658A
QRE01		ASSY CASE-REAR	GH98-17543A
	QMO01	MOTOR DC-GT-S5250	GH31-00503A
	QRF06	PMO COVER-USB	GH72-60559A
	QCK01	ASSY KEY-CAM	GH98-17855A
	QVO01	ASSY KEY-VOL	GH98-17856A
	QCK02	ASSY KEY-POWER	GH98-17857A

5. MAIN Electrical Parts List

5-1. Main

SEC CODE	DESIGN LOC	DESCRIPTION
0403-001688	ZD603	DIODE-ZENER
0404-001172	D300,D500	DIODE-SCHOTTKY
0406-001293	ZD400,ZD401,ZD402	DIODE-TVS
0406-001293	ZD403,ZD404,ZD405	DIODE-TVS
0406-001293	ZD406,ZD500,ZD501	DIODE-TVS
0406-001293	ZD502,ZD503,ZD601	DIODE-TVS
0406-001293	ZD604	DIODE-TVS
0407-001002	D600	DIODE-ARRAY
0801-002970	U602	IC
1001-001585	U601	IC
1001-001607	U103	IC
1001-001655	U401	IC
1108-000379	UME200	MEMORY
1201-002967	PAM102	IC
1201-003088	PAM101	IC
1201-003136	PAM100	IC
1203-006158	U301	IC
1203-006331	U500	IC
1205-003868	U102	IC
1205-004099	U105	IC
1205-004101	U104	IC
1205-004105	UCP200	IC
1209-001922	U402	IC
1404-001221	VR100	THERMISTOR
2007-000138	R406,R503,R606	R-CHIP
2007-000140	R402	R-CHIP
2007-000141	R420,R421	R-CHIP
2007-000143	R500,R600,R601	R-CHIP
2007-000148	R118	R-CHIP
2007-000156	R604	R-CHIP
2007-000162	R114,R115,R117,R132	R-CHIP
2007-000162	R222,R315,R501,R605	R-CHIP
2007-000170	R204,R307	R-CHIP
2007-000172	R502	R-CHIP
2007-001288	R302,R303	R-CHIP
2007-001323	R403	R-CHIP

SEC CODE	DESIGN LOC	DESCRIPTION
2007-003014	R221	R-CHIP
2007-007092	R400	R-CHIP
2007-007132	R110,R131	R-CHIP
2007-007489	R116	R-CHIP
2007-007981	R113	R-CHIP
2007-008213	R217	R-CHIP
2007-008401	R218	R-CHIP
2007-008419	R103,R105,R106,R107	R-CHIP
2007-008419	R210,R213	R-CHIP
2007-008806	R127,R128,R129,R130	R-CHIP
2007-008809	R201,R202,R211	R-CHIP
2203-000233	C1035,C108,C193,C231	C-CERAMIC,CHIP
2203-000254	C1030,C1031,C1032	C-CERAMIC,CHIP
2203-000254	C163,C194	C-CERAMIC,CHIP
2203-000278	C120,C121,C122,C145	C-CERAMIC,CHIP
2203-000278	C148,C151,C155,C160	C-CERAMIC,CHIP
2203-000278	C167,C173,C183	C-CERAMIC,CHIP
2203-000386	C111	C-CERAMIC,CHIP
2203-000438	C113,C401,C402,C417	C-CERAMIC,CHIP
2203-000550	C305,C308	C-CERAMIC,CHIP
2203-000627	C154	C-CERAMIC,CHIP
2203-000696	C139	C-CERAMIC,CHIP
2203-000812	C1001,C1002,C1003	C-CERAMIC,CHIP
2203-000812	C1004,C197	C-CERAMIC,CHIP
2203-000854	C400,C404	C-CERAMIC,CHIP
2203-000995	C613	C-CERAMIC,CHIP
2203-001101	C415,C416	C-CERAMIC,CHIP
2203-001124	C1023	C-CERAMIC,CHIP
2203-001153	C1037	C-CERAMIC,CHIP
2203-001385	C1017,C144	C-CERAMIC,CHIP
2203-002487	C603	C-CERAMIC,CHIP
2203-002709	C1033,C128,C150,C152	C-CERAMIC,CHIP
2203-002709	C156,C161,C164,C232	C-CERAMIC,CHIP
2203-002709	C414	C-CERAMIC,CHIP
2203-005234	C106,C140,C147	C-CERAMIC,CHIP
2203-005450	C1010,C1011,C190	C-CERAMIC,CHIP
2203-005552	C132,C134	C-CERAMIC,CHIP

SEC CODE	DESIGN LOC	DESCRIPTION
2203-005682	C1028,C1029,C180	C-CERAMIC,CHIP
2203-005729	C177	C-CERAMIC,CHIP
2203-005734	C1012,C1020,C1021	C-CERAMIC,CHIP
2203-005734	C1022	C-CERAMIC,CHIP
2203-005792	C198,C199	C-CERAMIC,CHIP
2203-006048	C102,C103,C109,C110	C-CERAMIC,CHIP
2203-006048	C112,C419,C604,C607	C-CERAMIC,CHIP
2203-006048	C609	C-CERAMIC,CHIP
2203-006141	C601	C-CERAMIC,CHIP
2203-006194	C185,C222,C224,C236	C-CERAMIC,CHIP
2203-006260	C115,C116,C133	C-CERAMIC,CHIP
2203-006348	C300	C-CERAMIC,CHIP
2203-006399	C168,C169,C170,C171	C-CERAMIC,CHIP
2203-006399	C502,C503,C610	C-CERAMIC,CHIP
2203-006410	C184,C186	C-CERAMIC,CHIP
2203-006423	C209,C210,C212,C214	C-CERAMIC,CHIP
2203-006423	C215,C217,C219,C221	C-CERAMIC,CHIP
2203-006423	C223,C225,C228,C229	C-CERAMIC,CHIP
2203-006423	C235,C315,C317	C-CERAMIC,CHIP
2203-006562	C323,C328,C329,C330	C-CERAMIC,CHIP
2203-006562	C405,C407,C408,C411	C-CERAMIC,CHIP
2203-006642	C1026	C-CERAMIC,CHIP
2203-006665	C1006,C1007	C-CERAMIC,CHIP
2203-006681	C157,C165,C166	C-CERAMIC,CHIP
2203-006707	C1038	C-CERAMIC,CHIP
2203-006824	C303,C504	C-CERAMIC,CHIP
2203-006846	C1005,C189,C192,C195	C-CERAMIC,CHIP
2203-006872	C104,C158,C159,C162	C-CERAMIC,CHIP
2203-006872	C172,C174,C175,C176	C-CERAMIC,CHIP
2203-006872	C191,C196,C321,C322	C-CERAMIC,CHIP
2203-006872	C325,C326,C327	C-CERAMIC,CHIP
2203-006890	C312,C313	C-CERAMIC,CHIP
2203-007270	C606	C-CERAMIC,CHIP
2203-007271	C1019,C1027,C149	C-CERAMIC,CHIP
2203-007279	C100,C501	C-CERAMIC,CHIP
2203-007317	C114,C420	C-CERAMIC,CHIP
2203-007391	C309,C310,C311,C314	C-CERAMIC,CHIP

SEC CODE	DESIGN LOC	DESCRIPTION
2203-007393	C101,C118,C119	C-CERAMIC,CHIP
2203-007449	C201,C203,C208,C211	C-CERAMIC,CHIP
2203-007449	C213,C216,C218,C220	C-CERAMIC,CHIP
2203-007449	C226,C307,C316,C319	C-CERAMIC,CHIP
2203-007449	C320,C324,C331,C332	C-CERAMIC,CHIP
2203-007449	C333,C334,C335,C336	C-CERAMIC,CHIP
2203-007449	C337,C341,C342,C509	C-CERAMIC,CHIP
2203-007449	C510,C512,C600,C602	C-CERAMIC,CHIP
2203-007687	C500	C-CERAMIC,CHIP
2404-001377	C410	C-TA,CHIP
2404-001506	C306	C-TA,CHIP
2404-001516	C107,C605,C608	C-TA,CHIP
2404-001572	C301,C302	C-TA,CHIP
2703-001409	L115,L136	INDUCTOR-SMD
2703-001708	L105	INDUCTOR-SMD
2703-001751	L131	INDUCTOR-SMD
2703-002170	L130	INDUCTOR-SMD
2703-002176	L113	INDUCTOR-SMD
2703-002203	L109	INDUCTOR-SMD
2703-002205	L126	INDUCTOR-SMD
2703-002207	L108	INDUCTOR-SMD
2703-002208	L112,L114	INDUCTOR-SMD
2703-002269	L102,L127	INDUCTOR-SMD
2703-002309	L128	INDUCTOR-SMD
2703-002313	L408,L410	INDUCTOR-SMD
2703-002368	L110	INDUCTOR-SMD
2703-002608	L120	INDUCTOR-SMD
2703-002793	L117,L119	INDUCTOR-SMD
2703-002907	L123	INDUCTOR-SMD
2703-002953	L122,L124	INDUCTOR-SMD
2703-003485	L501	INDUCTOR-SMD
2703-003686	L300,L301	INDUCTOR-SMD
2703-003698	L103	INDUCTOR-SMD
2703-003878	L406	INDUCTOR-SMD
2801-004551	OSC300	CRYSTAL-UNIT
2801-004589	OSC102	CRYSTAL-UNIT
2809-001351	TCX100	OSCILLATOR-VCTCXO

SEC CODE	DESIGN LOC	DESCRIPTION
2809-001363	OSC101	OSCILLATOR-VCTCXO
2901-001454	F500,F501,F502,F503	FILTER-EMI SMD
2901-001454	F504,F505,F506	FILTER-EMI SMD
2904-001759	F105	FILTER-SAW
2904-001891	F100	FILTER-SAW
2904-001914	F101	FILTER-SAW
2909-001324	F104	FILTER-DUPLEXER
2910-000092	F102	FILTER
2910-000114	F103	FILTER
3003-001136	MIC400	MIC-CONDENSOR
3301-001438	L118	CORE-FERRITE BEAD
3301-001534	L100,L101	CORE-FERRITE BEAD
3301-001659	L116,L125	CORE-FERRITE BEAD
3301-001789	L600	CORE-FERRITE BEAD
3301-001810	L505	CORE-FERRITE BEAD
3301-002065	L400,L401,L402,L403	CORE-FERRITE BEAD
3301-002065	L405,L508,L509,L510	CORE-FERRITE BEAD
3301-002065	L511	CORE-FERRITE BEAD
3301-002078	L407,L409	CORE-FERRITE BEAD
3404-001410	TAC600,TAC601,TAC602	SWITCH-TACT
3404-001410	TAC603	SWITCH-TACT
3705-001731	RFS100	CONNECTOR-COAXIAL
3708-002222	SLC501	CONNECTOR-FPC/FFC/PIC
3708-002283	HDC400	CONNECTOR-FPC/FFC/PIC
3709-001575	CD300	CONNECTOR-CARD EDGE
3709-001625	SIM300	CONNECTOR-CARD EDGE
3711-006615	HDC501	CONNECTOR-HEADER
3711-006843	HDC500	CONNECTOR-HEADER
3711-007312	BTC600	CONNECTOR-HEADER
3712-001348	ANT100,ANT101,ANT102	CONNECTOR
3712-001348	ANT103,MOT600,MOT601	CONNECTOR
3712-001348	SPK400,SPK401	CONNECTOR
3722-003065	IFC600	JACK-PHONE
GH80-03320A	R100	PB-SHORT-1005
GH80-03321A	R223	PB-SHORT-0603
RES-Z0603-S	R104,R126	RES-Z0603-SHORT-P
RES-Z1005-S	R235,R300	RES-Z1005-SHORT-P

7. Level 2 Repair

7-1. Disassembly

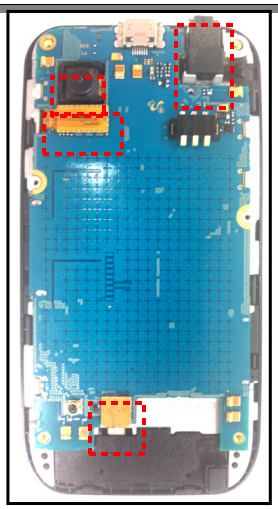
1 1) Unscrew the 6 points.

Caution
1) Be care of scratch and molding damage.

2 1) Seperate lower part of rear using a decomposition tool.

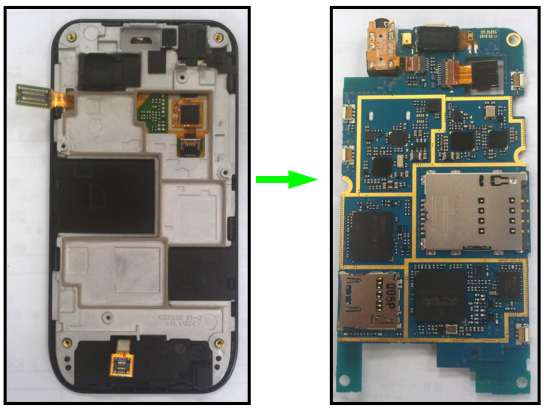
Caution
1) Be care of scratch and molding damage.

3 1) Separate the LCD and Sub key Connectors from PBA.
2) Disassemble the Cam and 3.5phi Earjack.



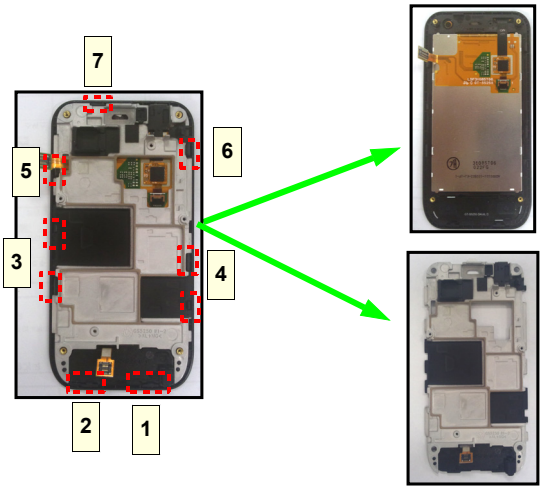
Caution
1) Be care of damage to Connectors, Cam and 3.5phi Earjack

4 1) Separate the PBA ASS'Y from the FRONT ASS'Y.



Caution
1) Be care of scratch and molding damage.
2) Be care of damage to FPCB.

5 1) Disassemble the 9 hooks. then separate Bracket from FRONT Ass'y.

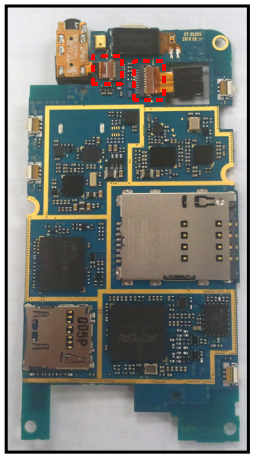


Caution
1) Be care of scratch and Gascket damage.

6 1) Unlock the TSP Connector. then detach TSP IC and FPCB from LCD.
2) Separate LCD and Subkeypad from the FRONT CASE.

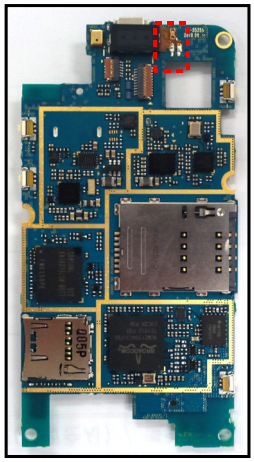
Caution
1) Be care of scratch and molding damage.
2) Be care of damage to the LCD.

7 1) Unlock the 3.5Phi Connector then separate 3.5Phi Earjack.
2) Unlock the Cam Connector then separate Cam module.



Caution
1) Be care of damage to FPCB.

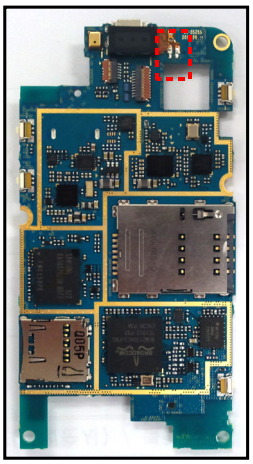
8 1) Unsolder Receiver FPCB and separate Receiver from the PBA.



Caution
1) Be care of damage to FPCB.

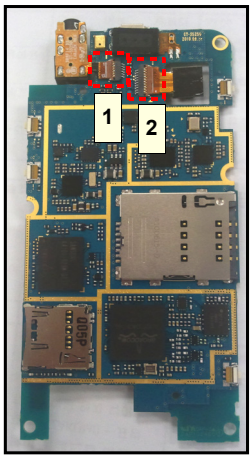
7-2. Assembly

1 1) Solder the Receiver.



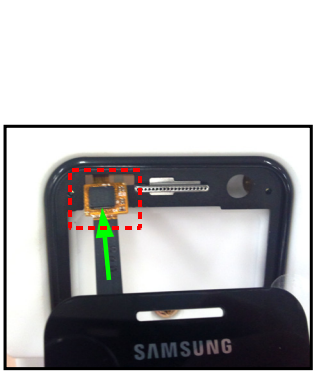
Caution
1) Be care of damage the FPCB.

2 1) Insert the 3.5phi earjack FPCB then lock the actuator.
2) Insert the Cam FPCB then lock the actuator.



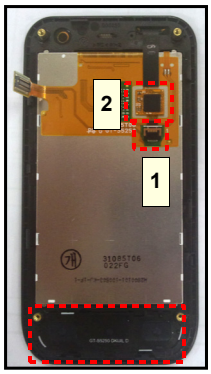
Caution
1) Be care of damage the FPCB.

3 1) Insert the TSP FPCB into the hole of front.
2) Put the TSP on the upper of the front.



Caution
1) Be care of damage the FPCB.

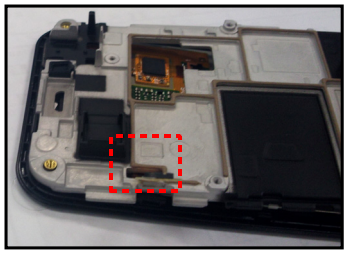
4 1) Put the LCD on the front matching 4points.
2) Insert the TSP FPCB. then attatch TSP IC.
3) Put the keypad on the front.

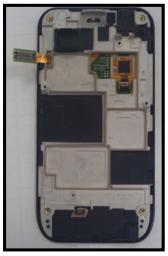


Caution
1) Be care of damage to F-CPB and LCD.
2) Be care of scratch and molding damage.

5

1) Put the LCD FPCB though the hole of the bracket.
2) Assemble the Sub Cam

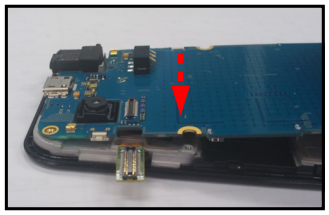


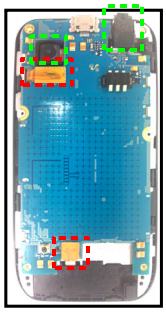


Caution
1) Be care of damage the FPCB.
2) Be care of scratch and molding damage.

6

1) Put the PBA ass'y on the front ass'y.
2) Connect the LCD and Sub key connectors.
3) Push the Cam and 3.5phi earjack.





Caution
1) Be care of damage the FPCB.
2) Be care of scratch and molding damage.

7

1) Assemble the REAR upper side first.

Caution
1) Be care of scratch and molding damage.

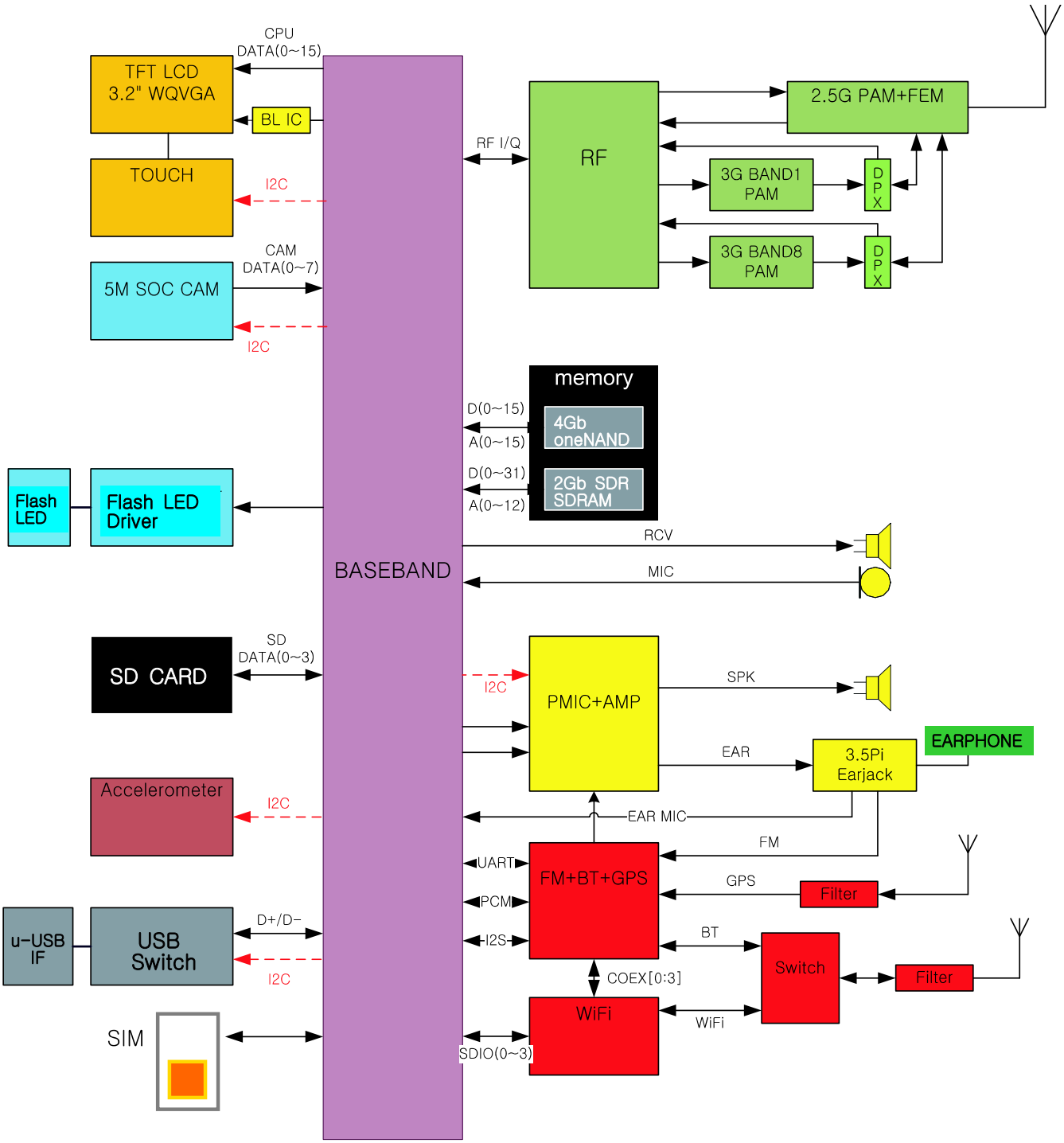
8

1) Screw 6 points.**(1.2 kg/force)**

Caution
1) Be care of scratch and molding damage.

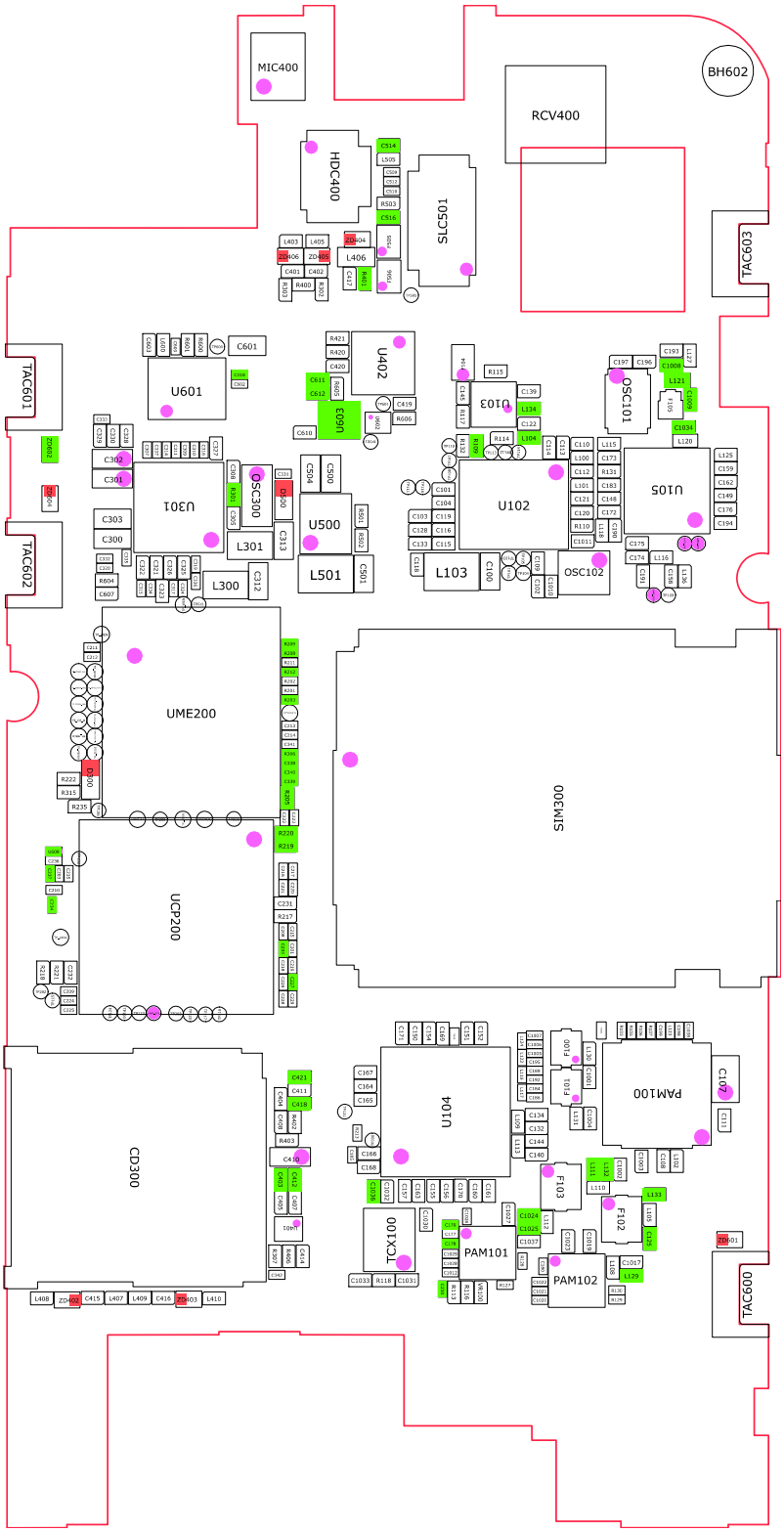
8. Level 3 Repair

8-1. Block Diagram

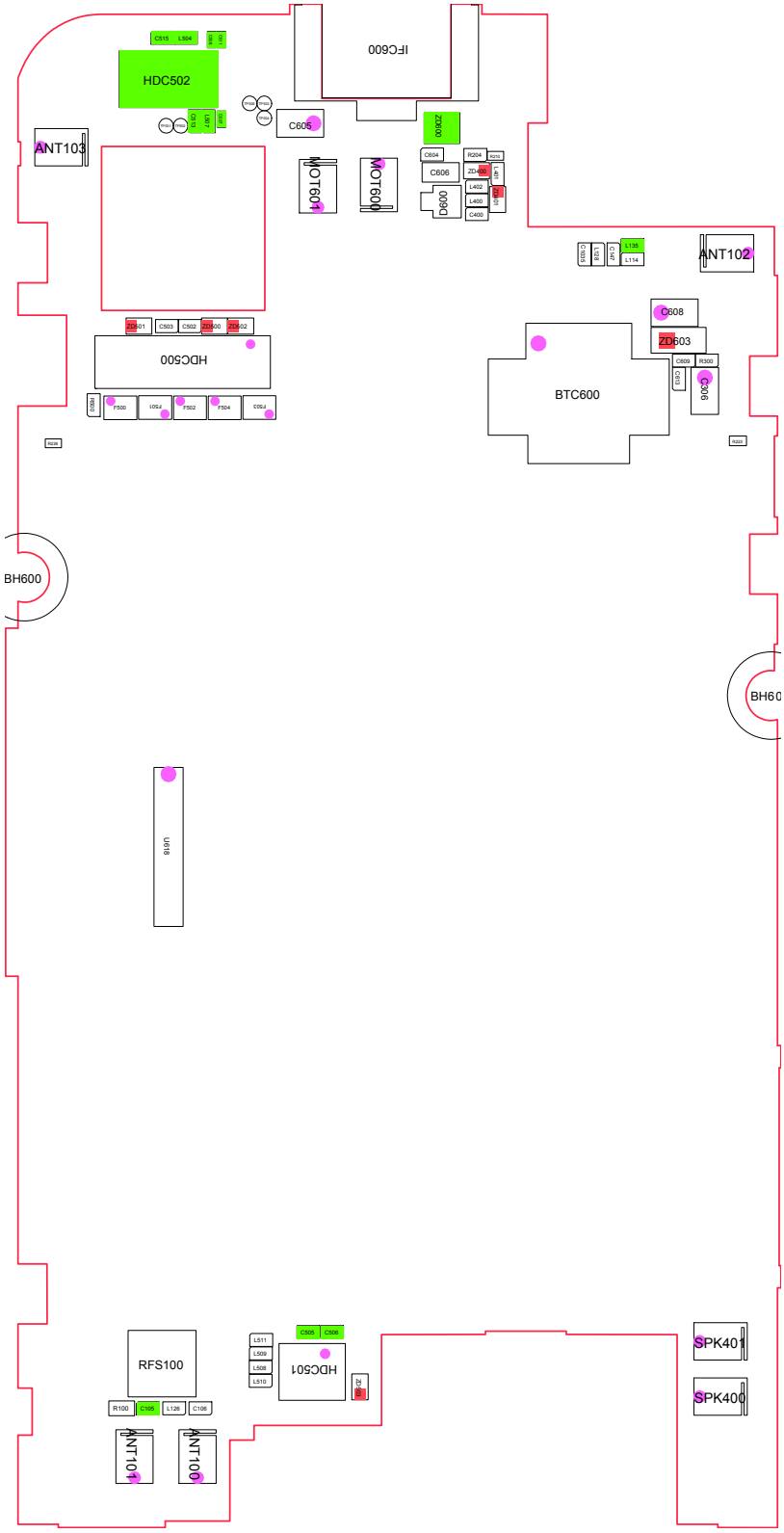


8-2. PCB Diagrams

8-2-1. Top



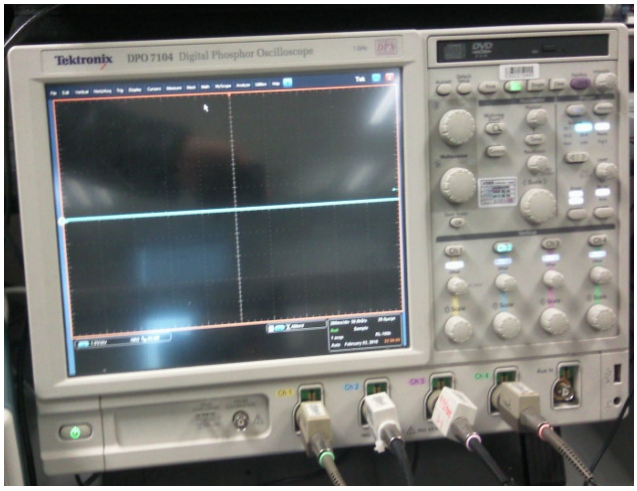
8-2-1. Bottom



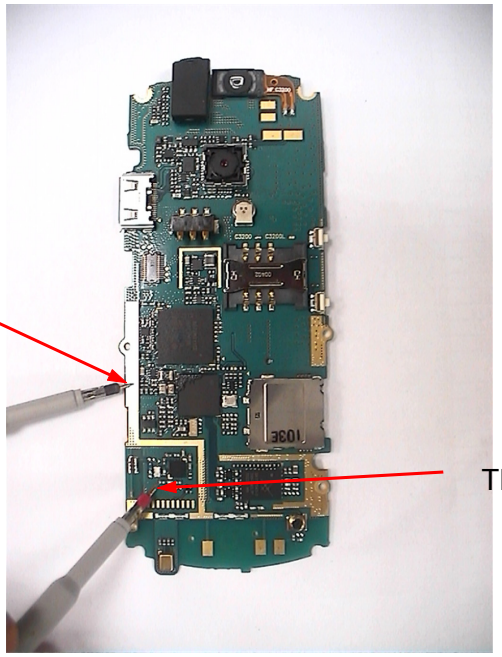
8-3. Flow Chart of Troubleshooting

⁀ presetting methods for checking TP

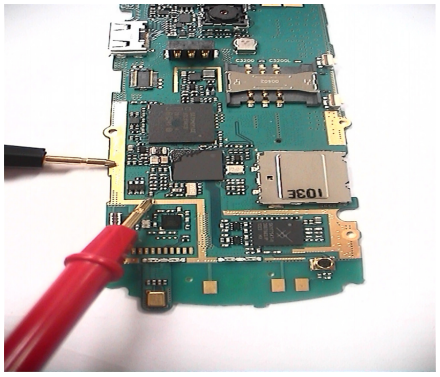
- GND & TP(exp. VBAT=**C100, C149**) using Oscilloscope
- look over the coming out signal.



¬ Oscilloscope



ㄱ Multi-meter



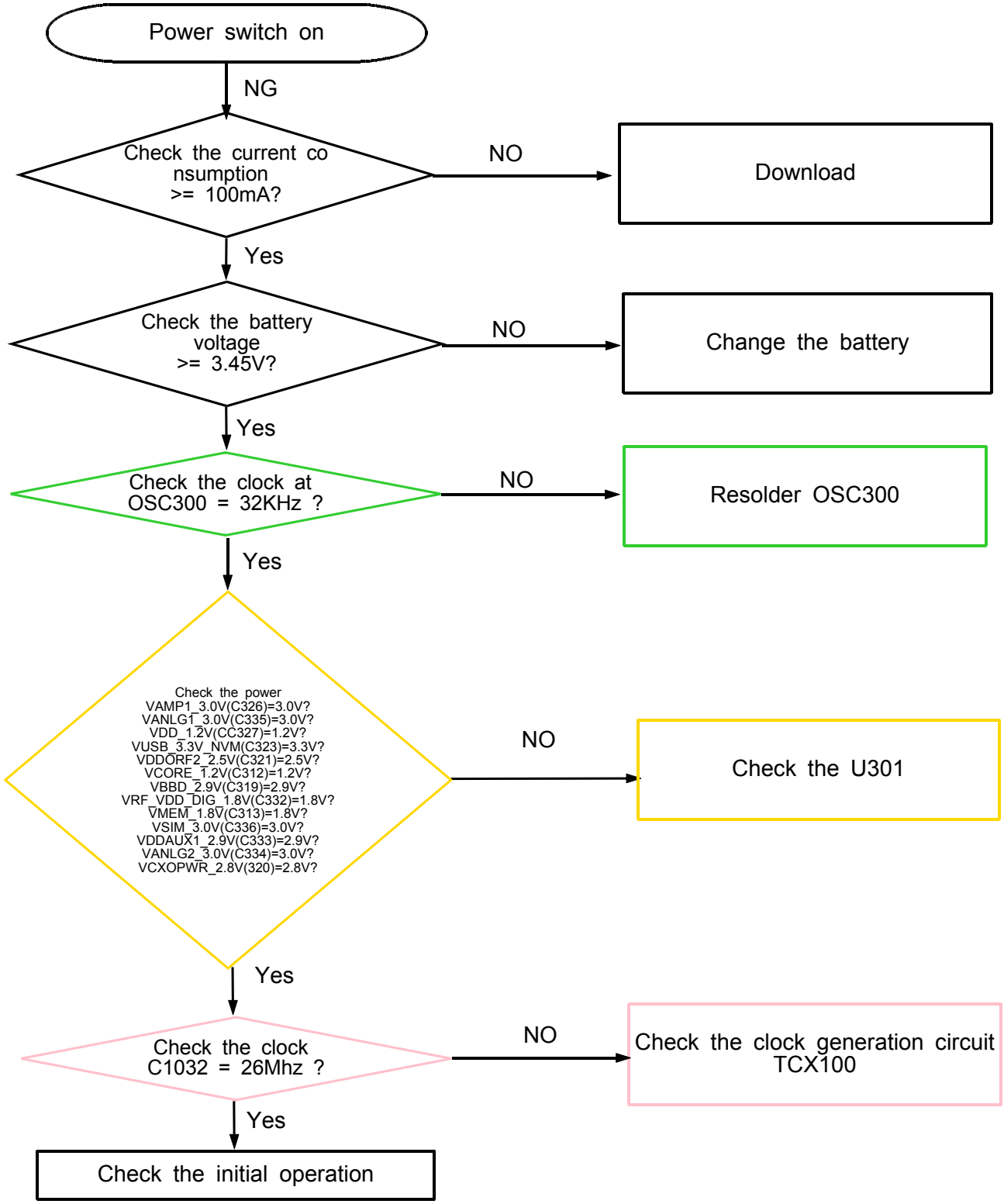
ㄱ Checking the TP(test point) using Multi-meter

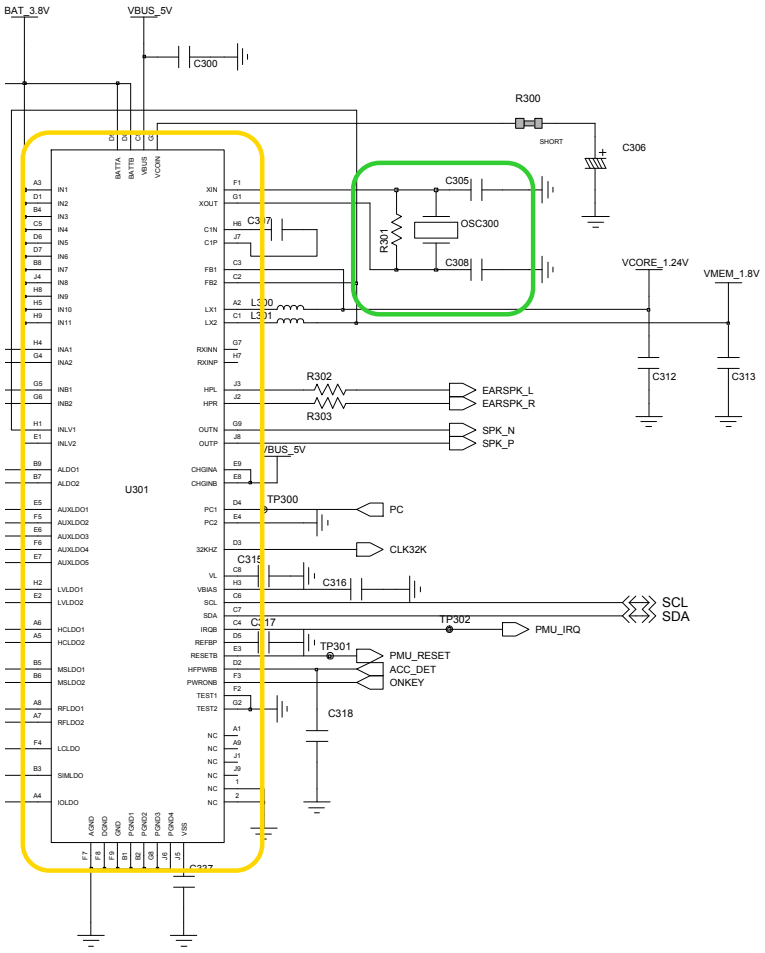
- EX) to look up the TP, shunt Cap.

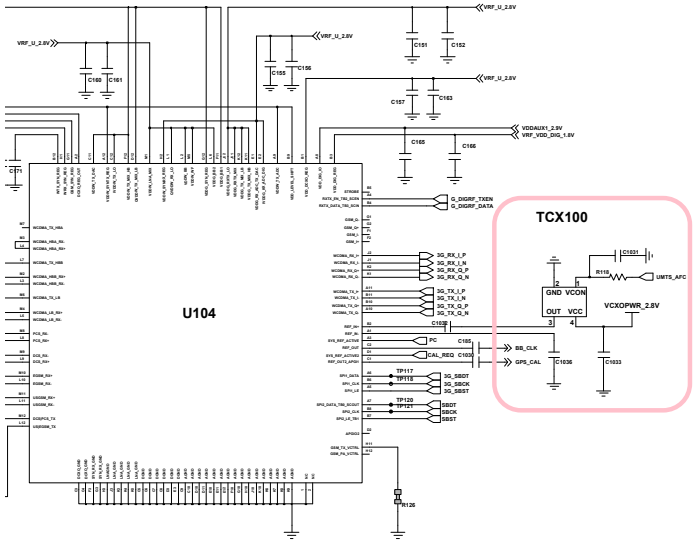
- if checking the GND, you can listen "beep"
  if checking the Signal, you can't listen it.

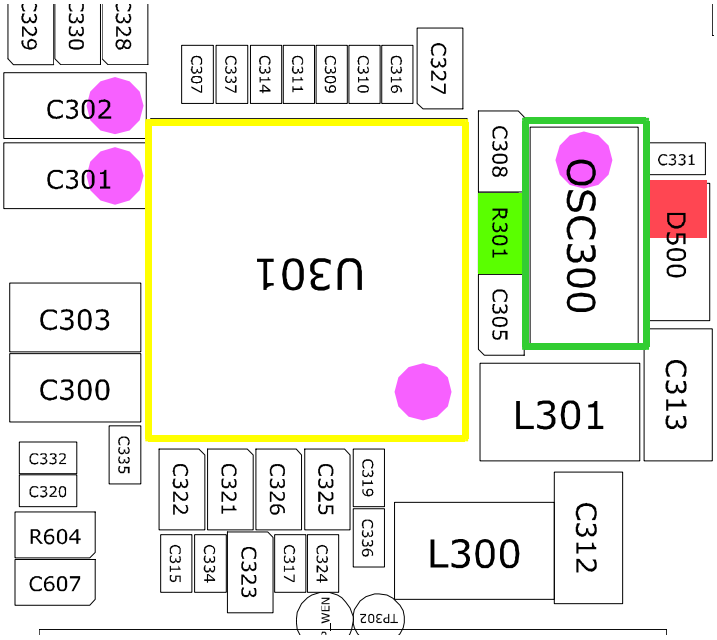
8-3. LOGIC

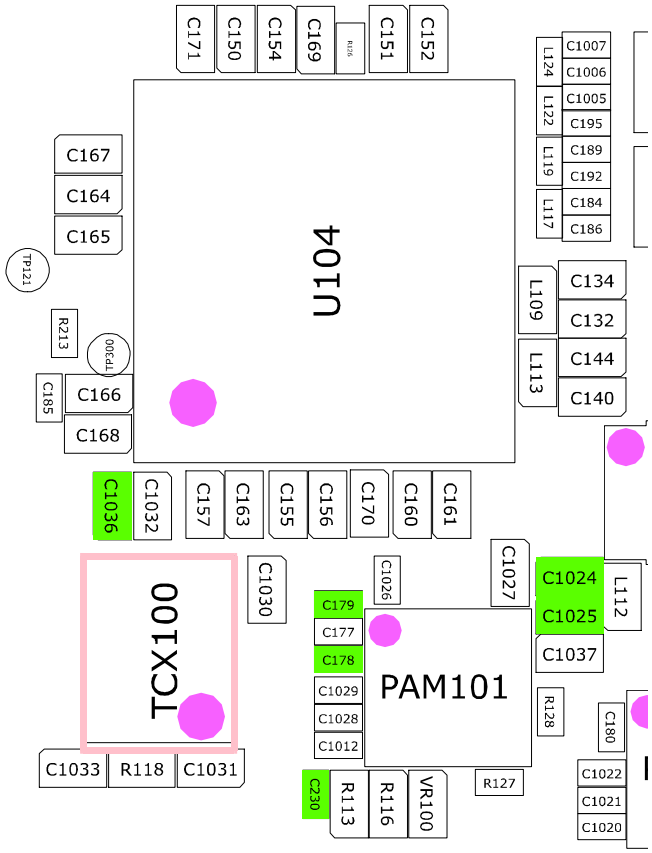
8-3-1. Power On



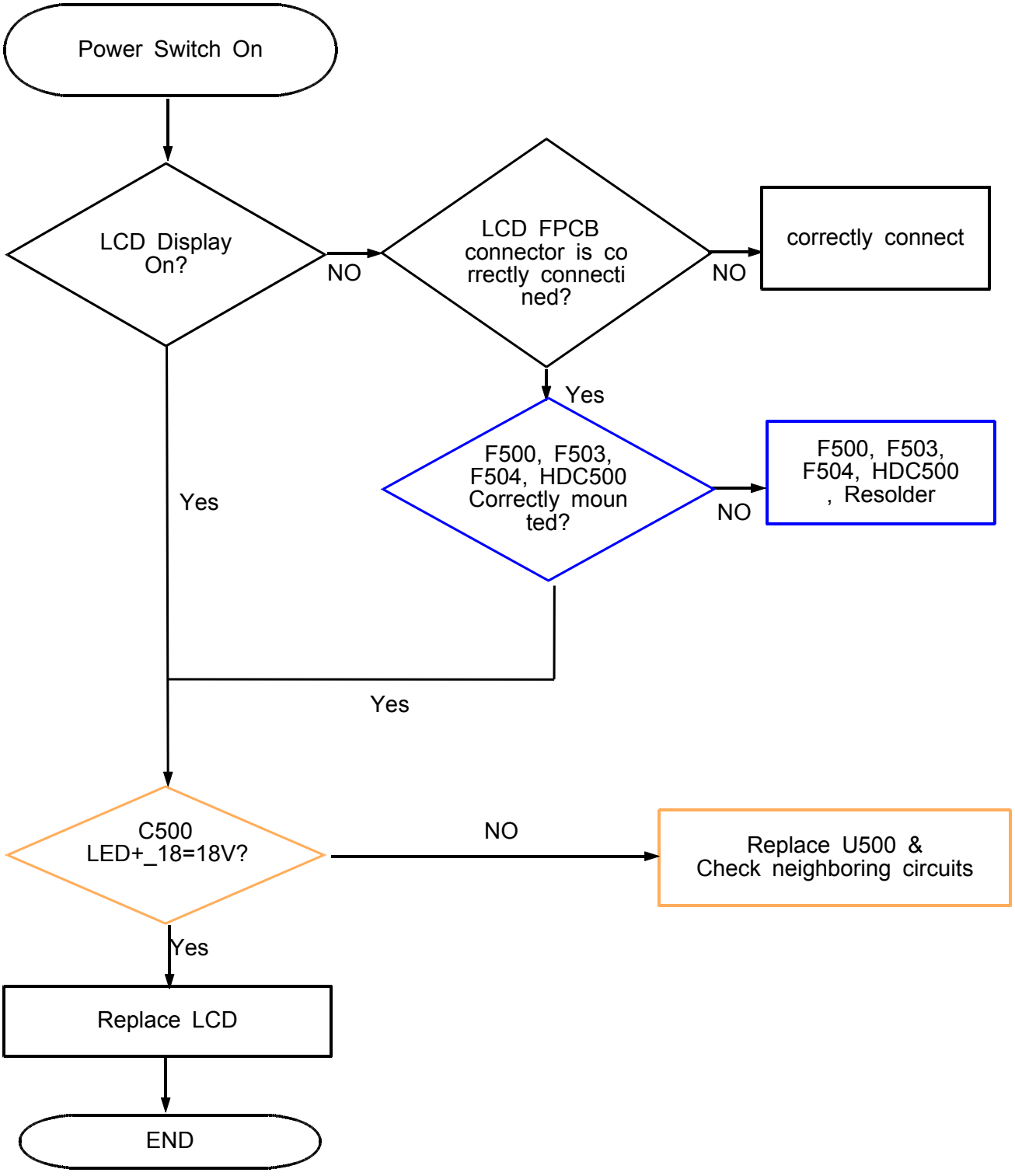


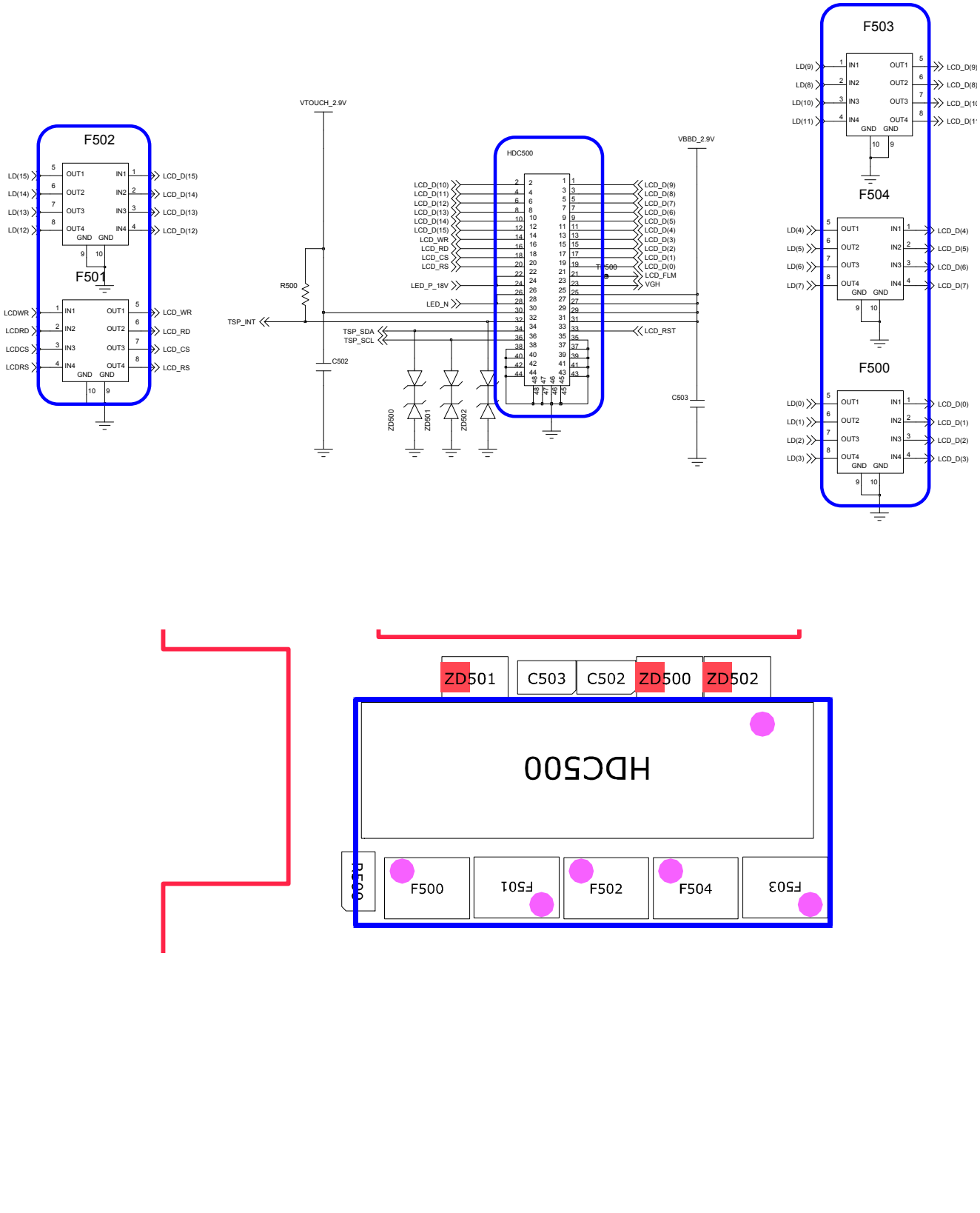


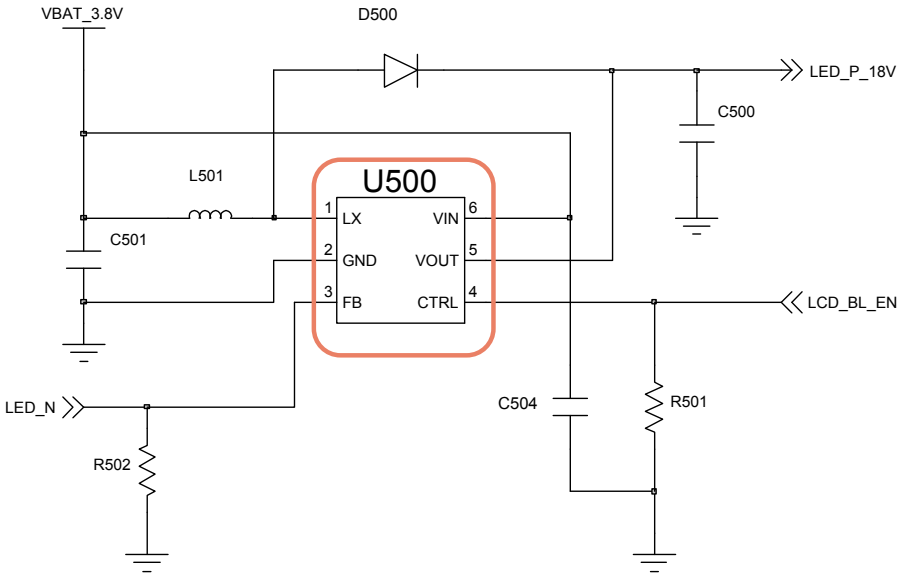


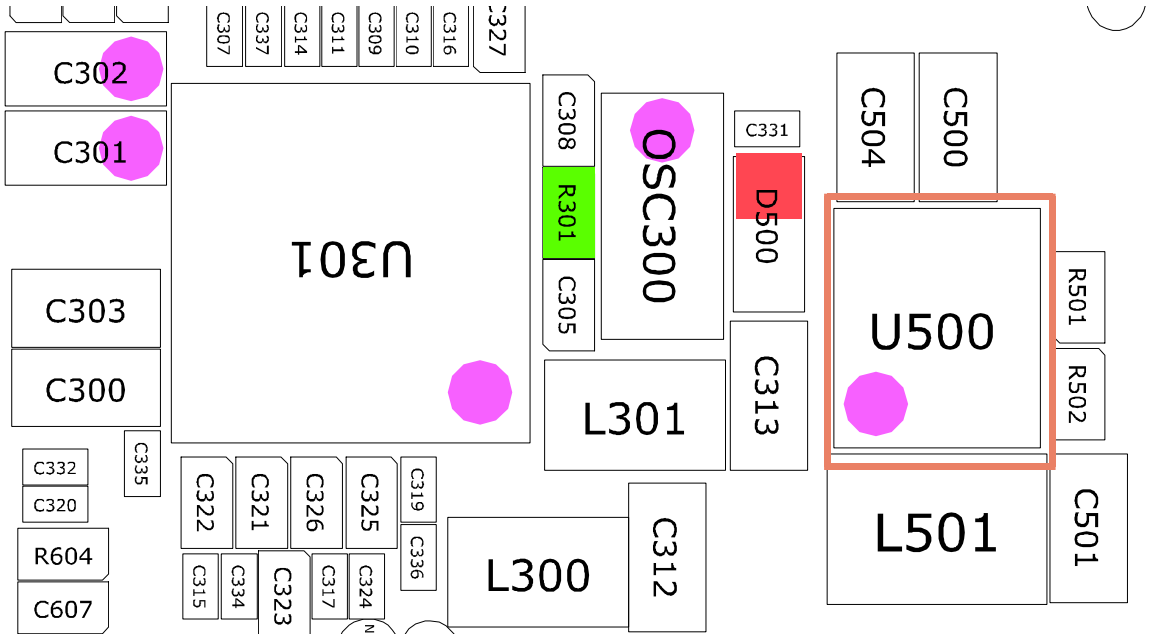


8-3-2. LCD

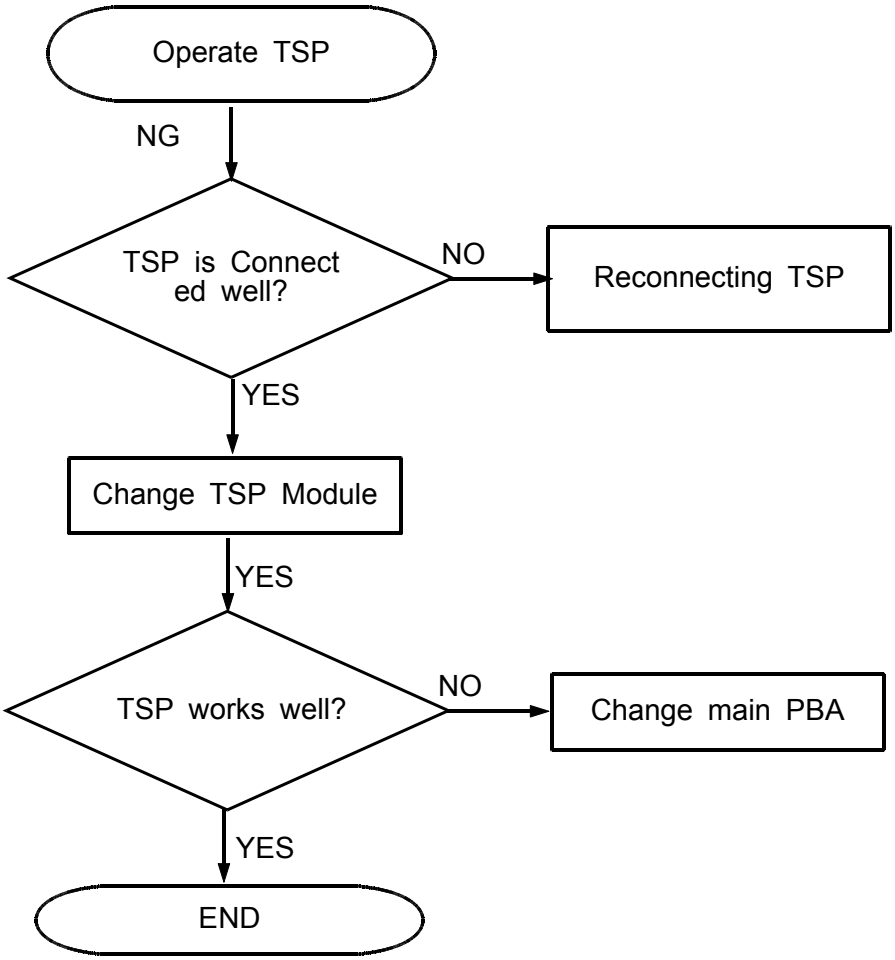






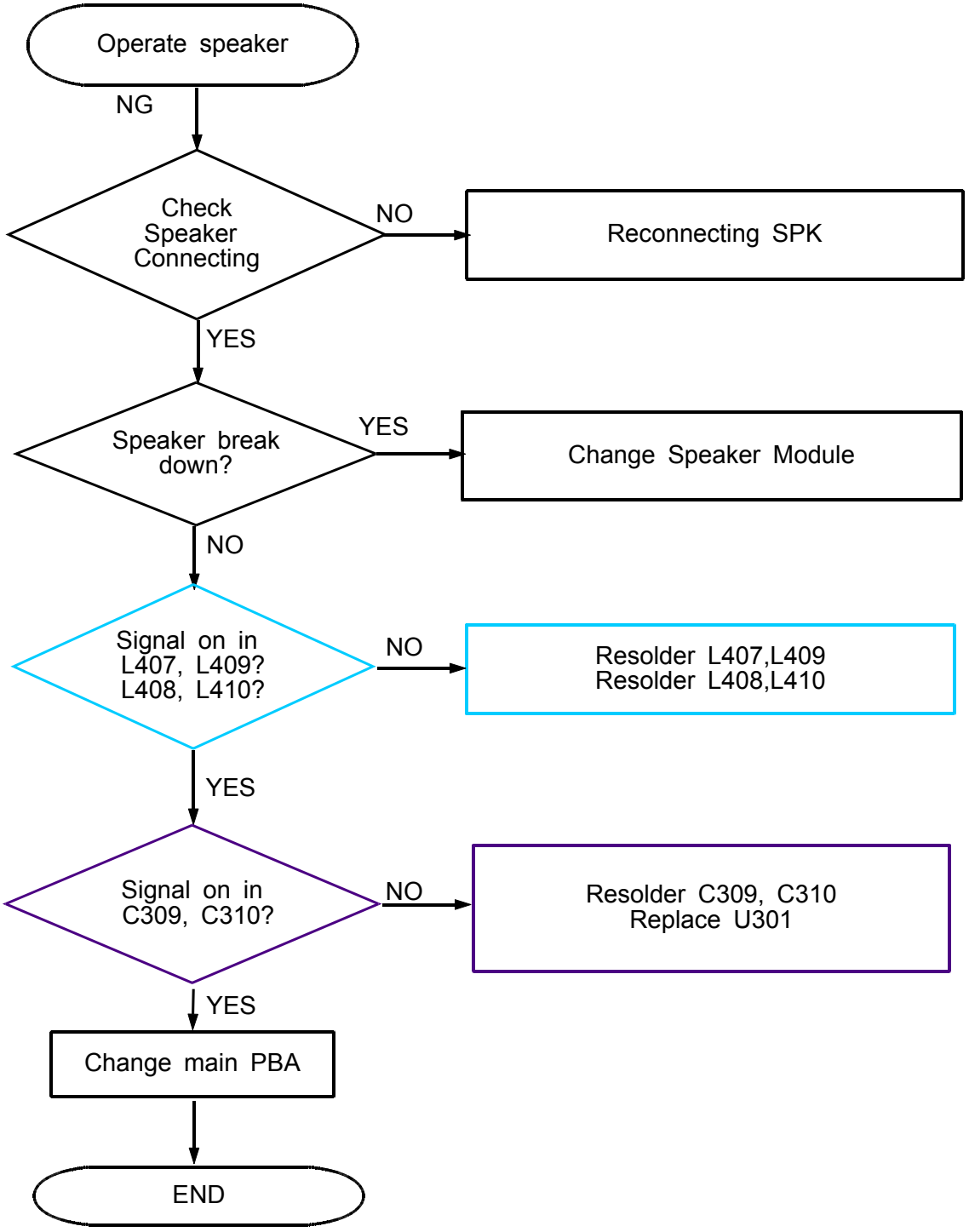


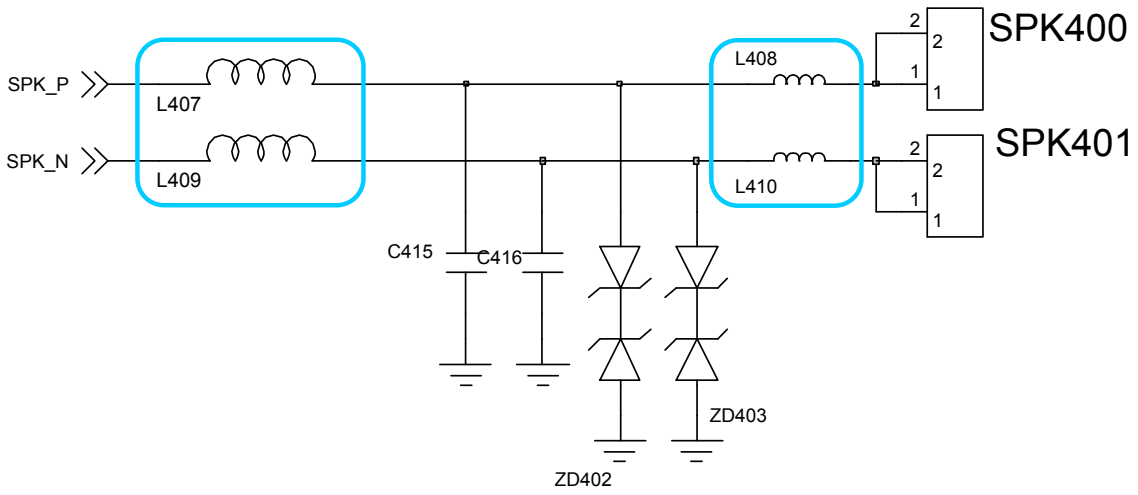
8-3-3. TSP

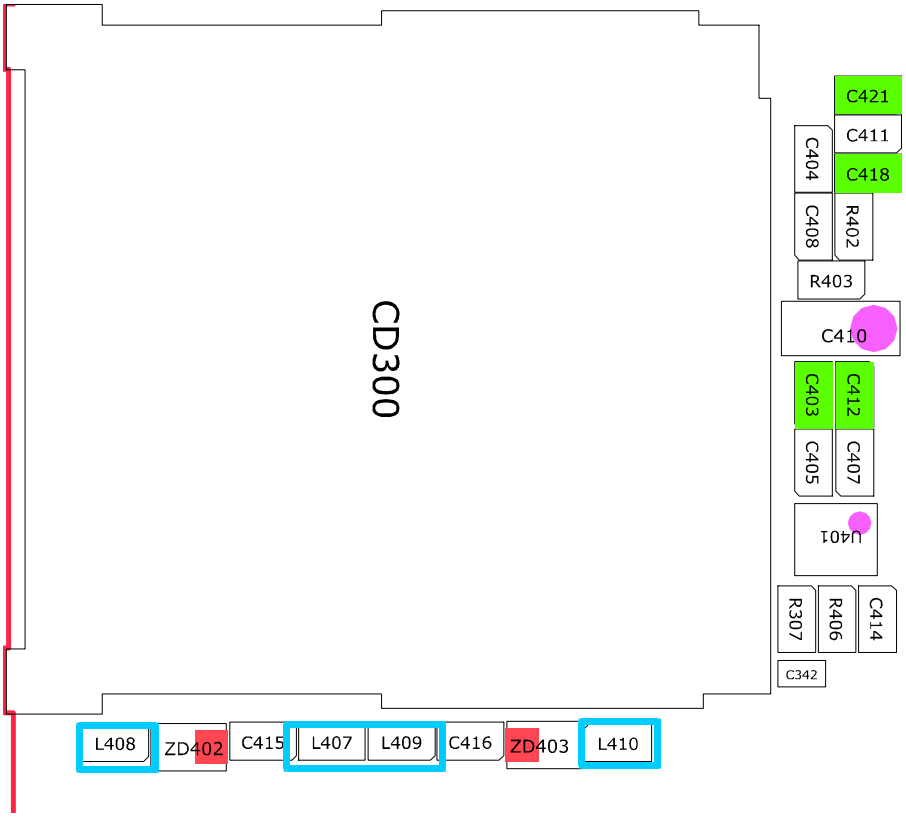


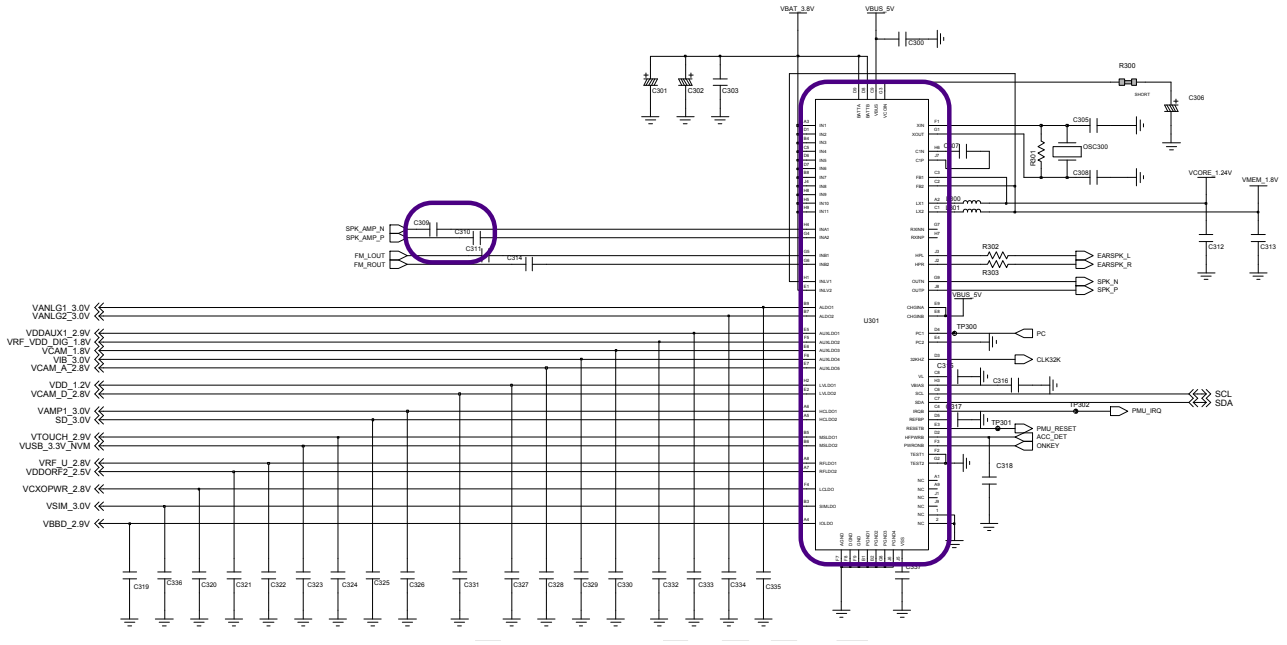
8-3-4. Audio

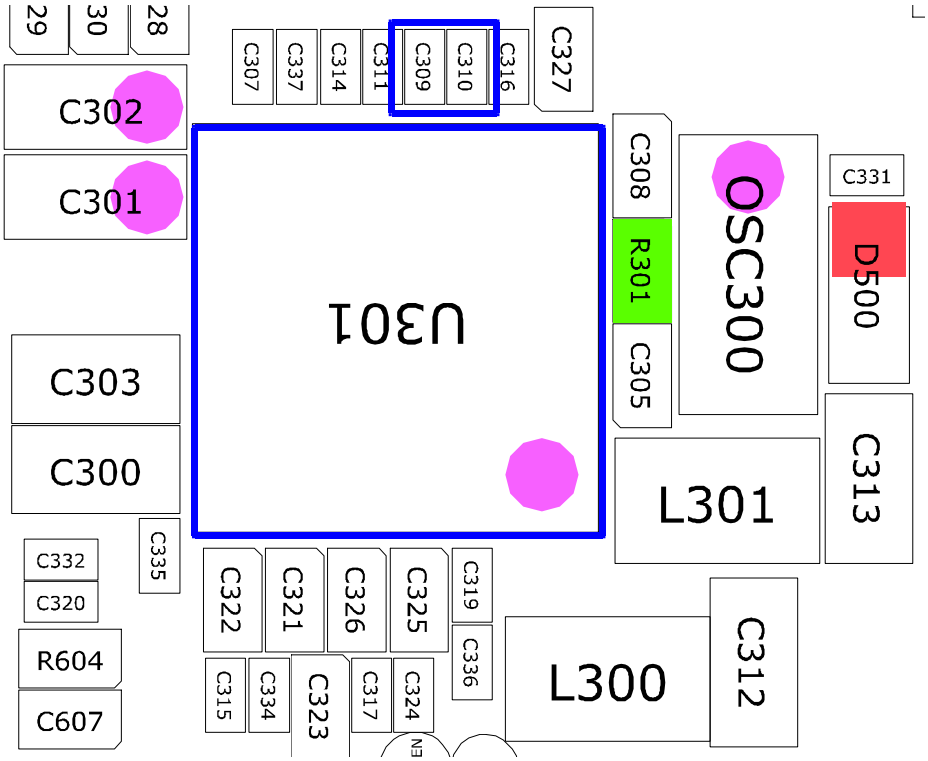
- Speaker



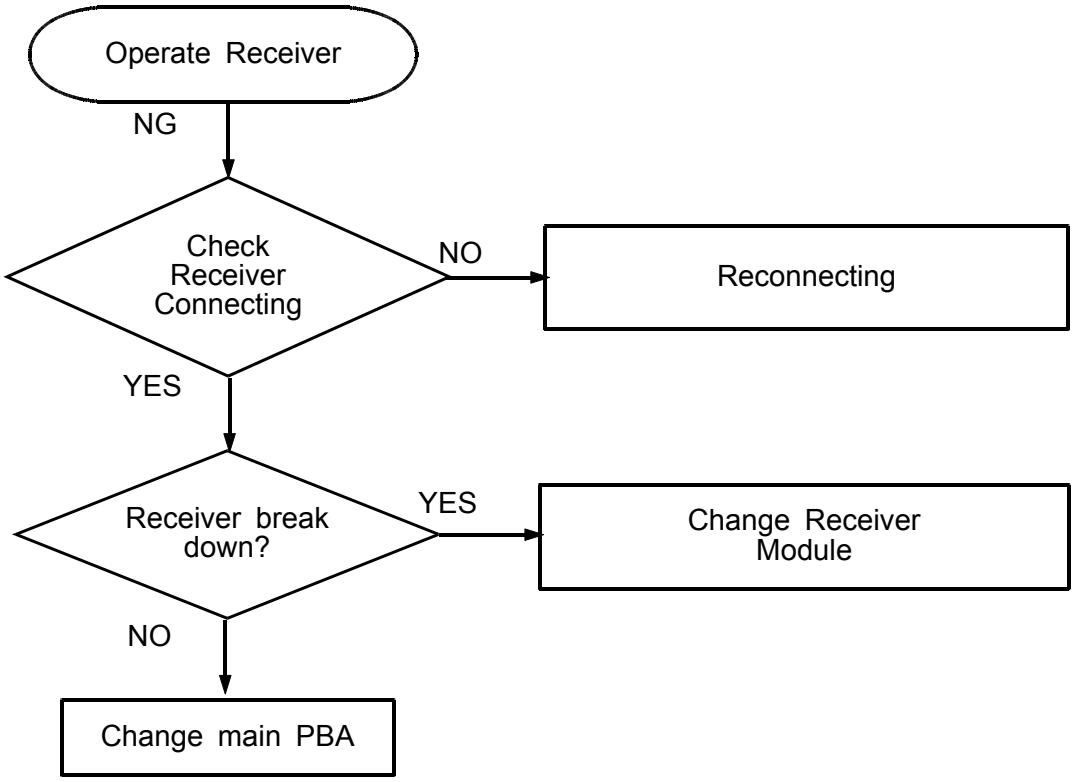




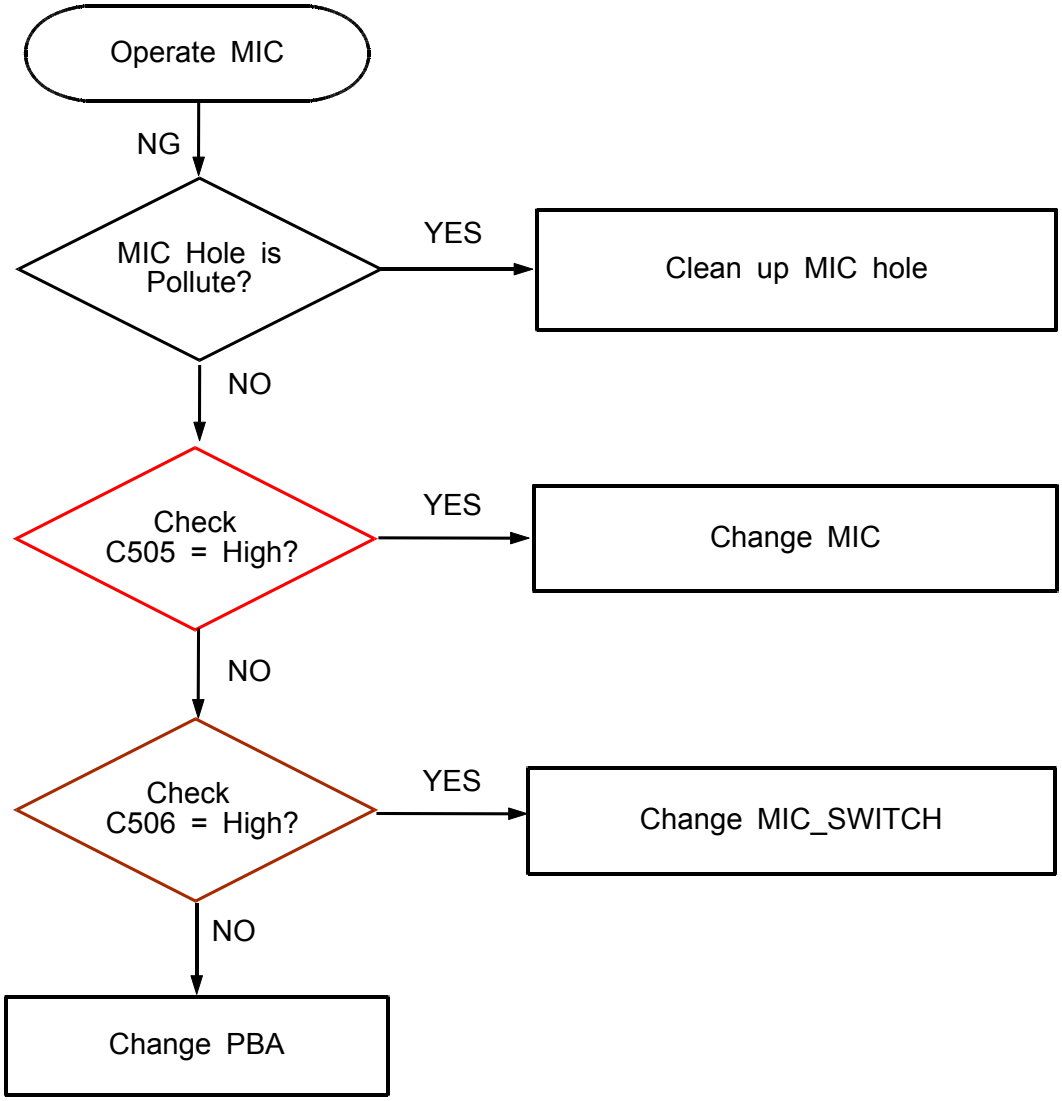


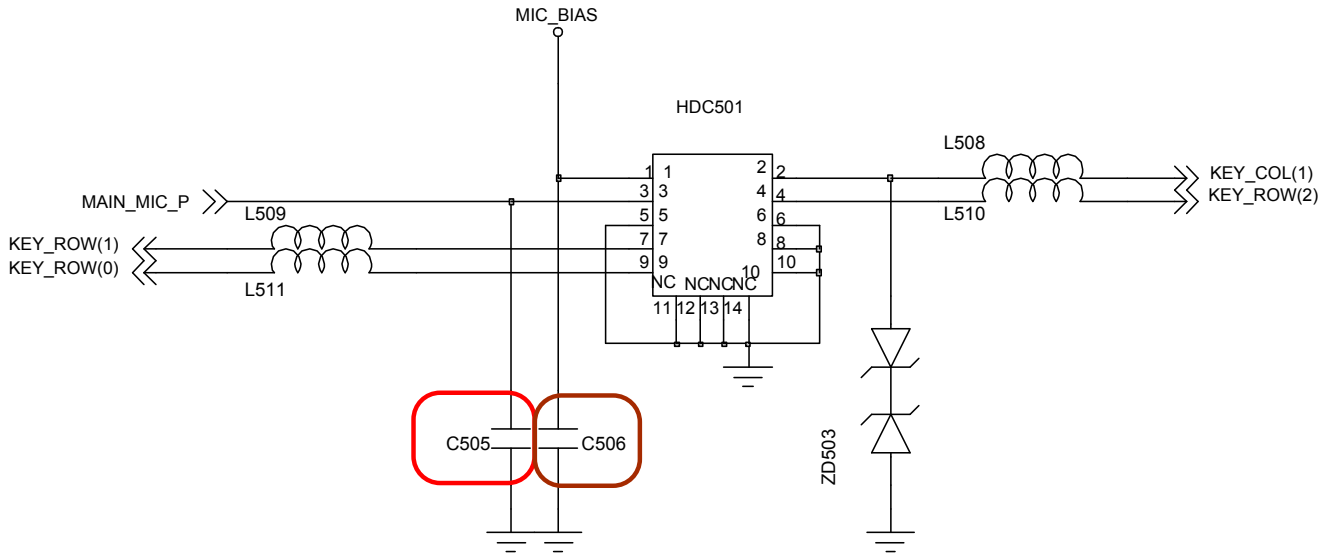


- Receiver

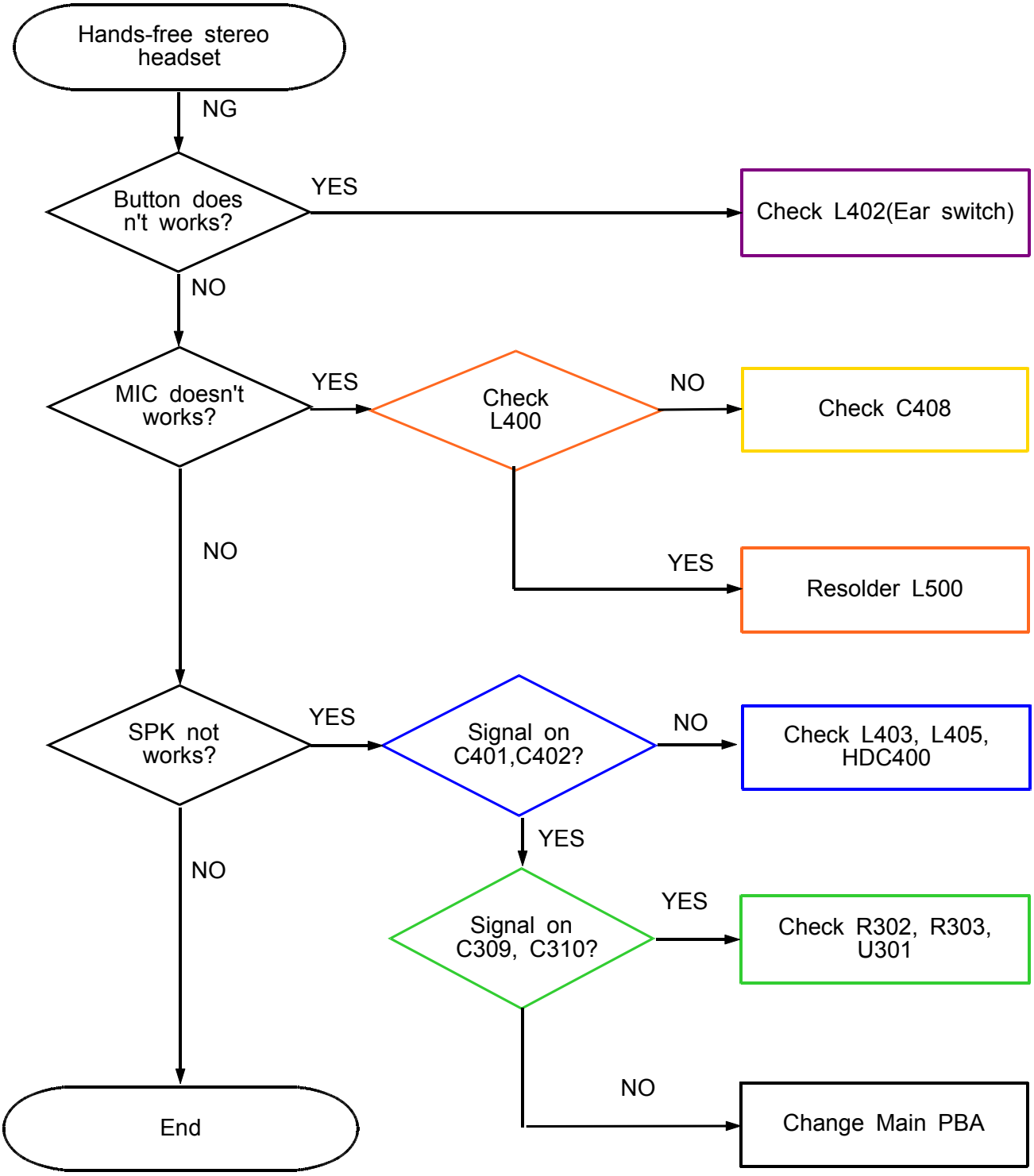


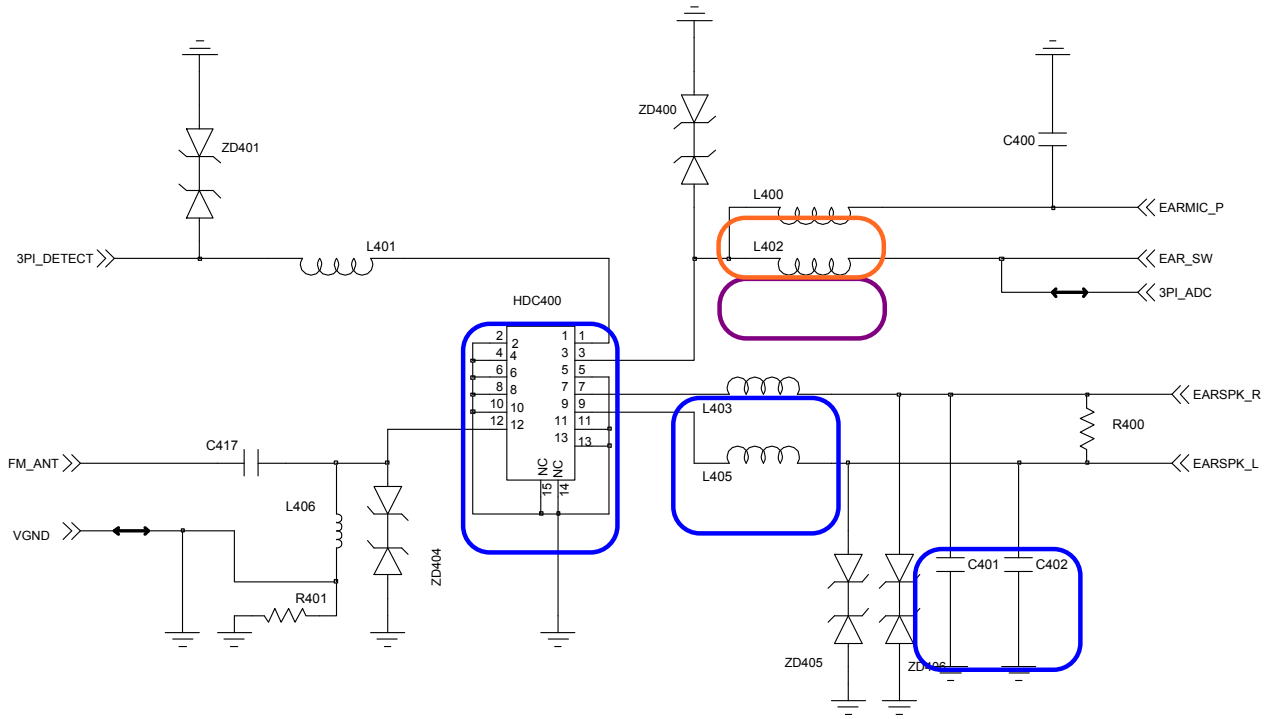
- Main MIC Working

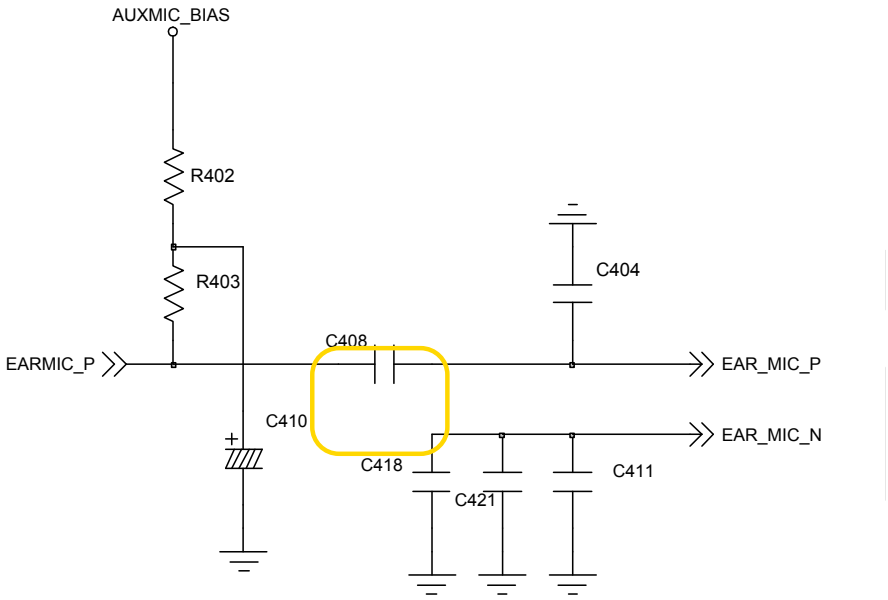


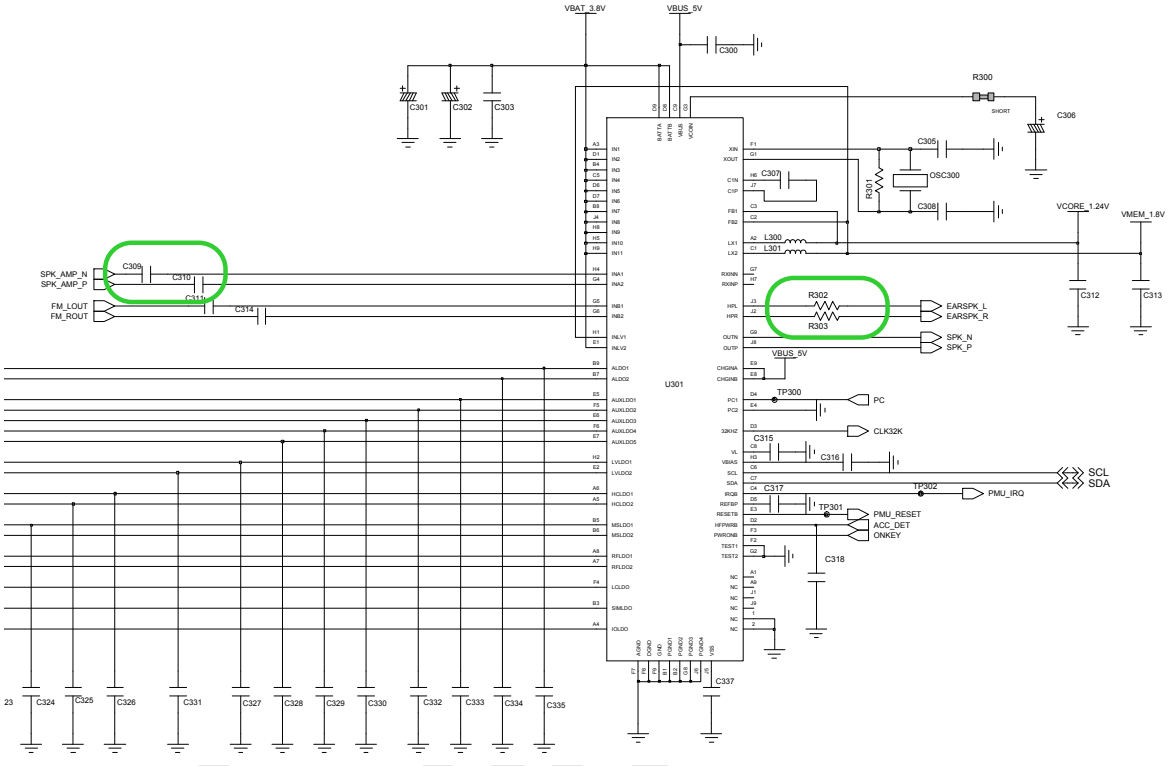


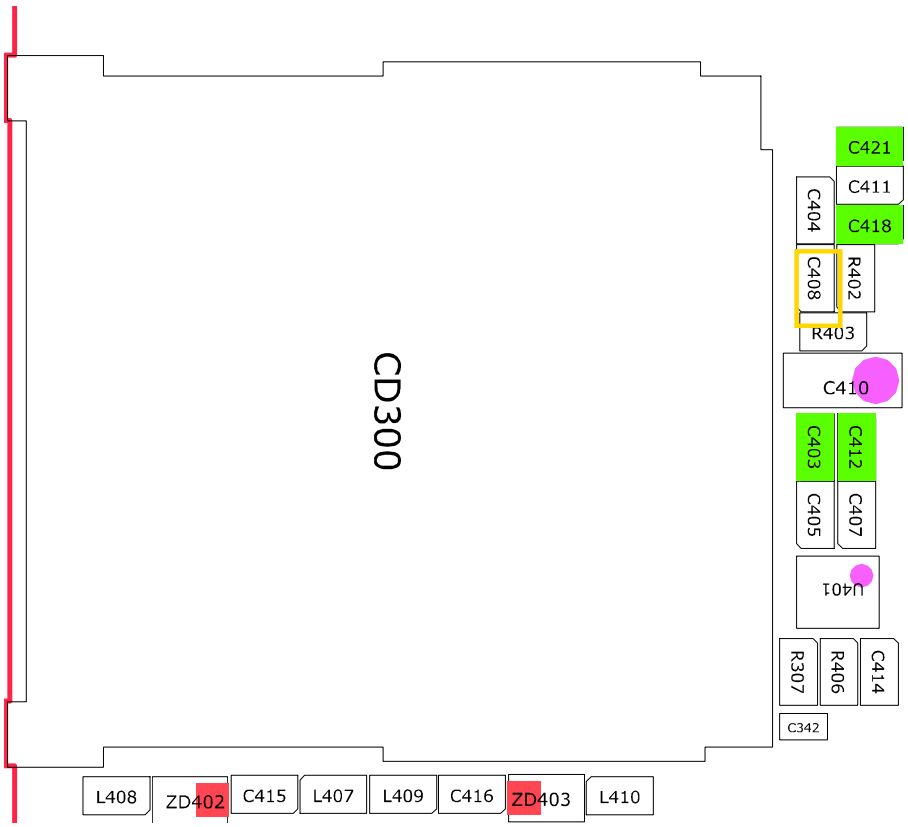
● Stereo Headset

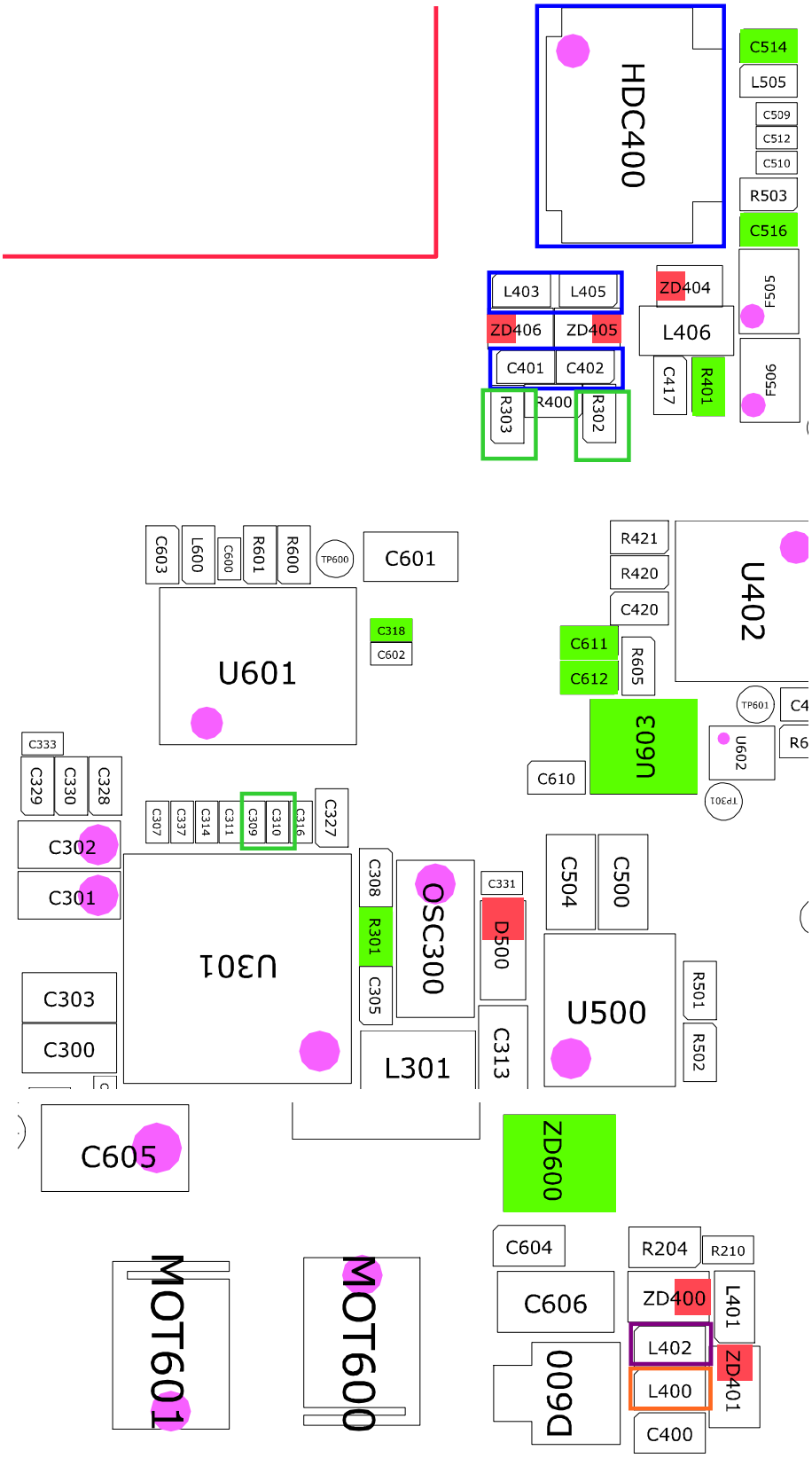






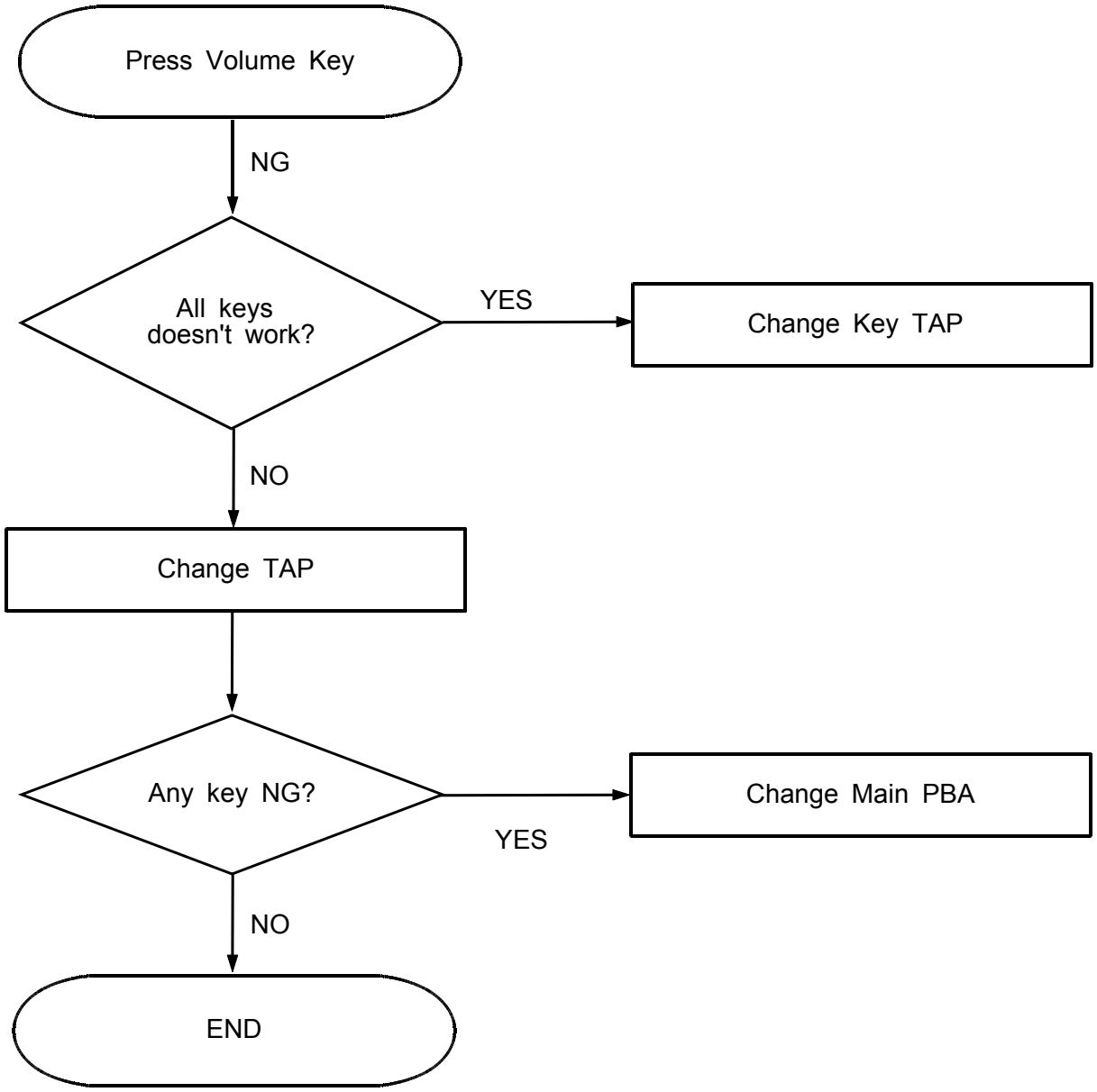




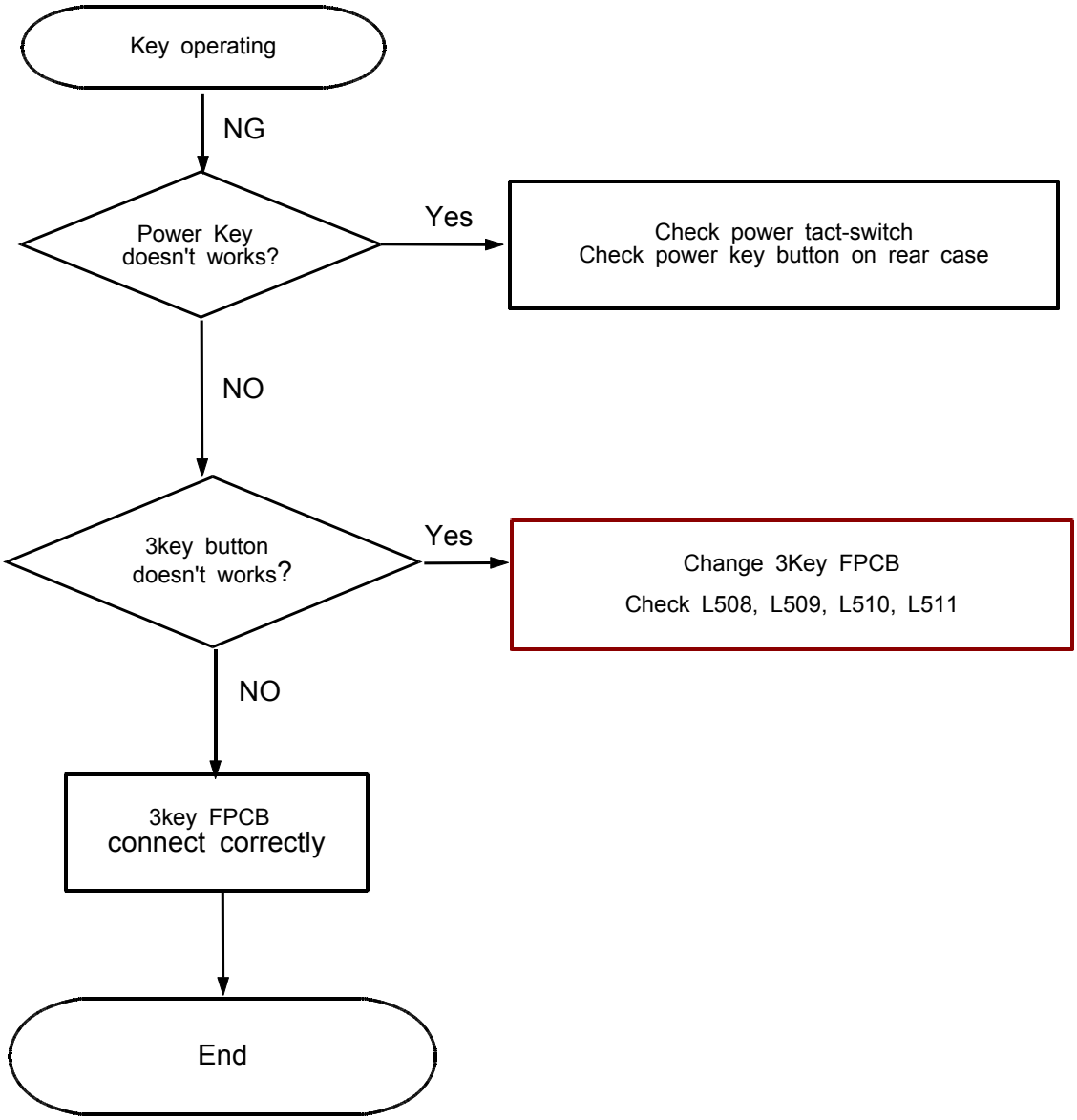


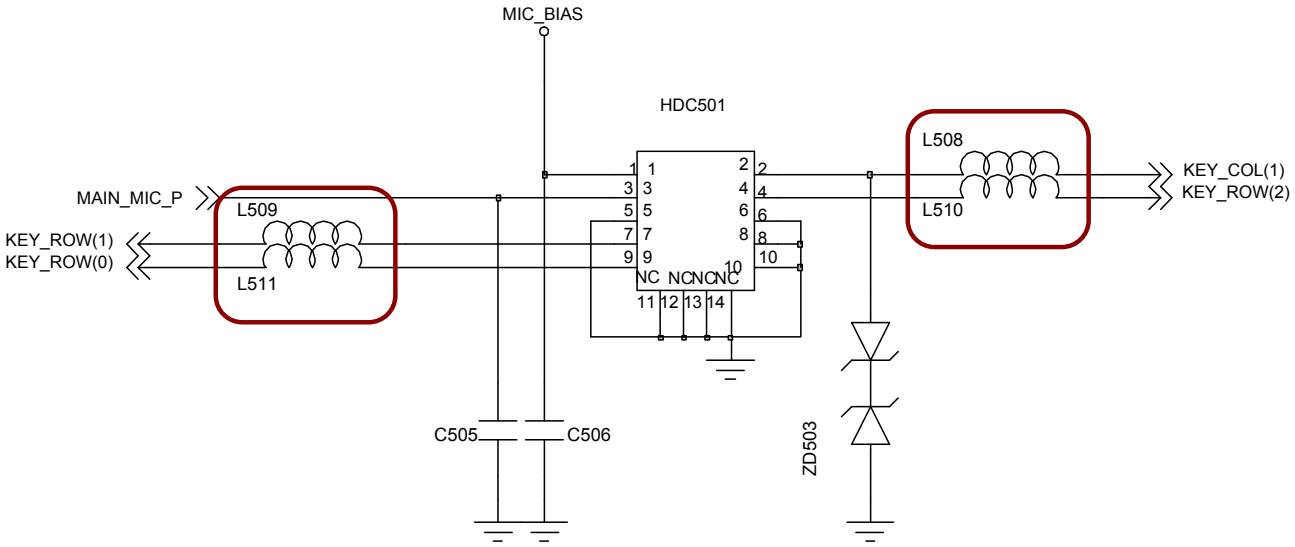
8-3-5. KEY Working

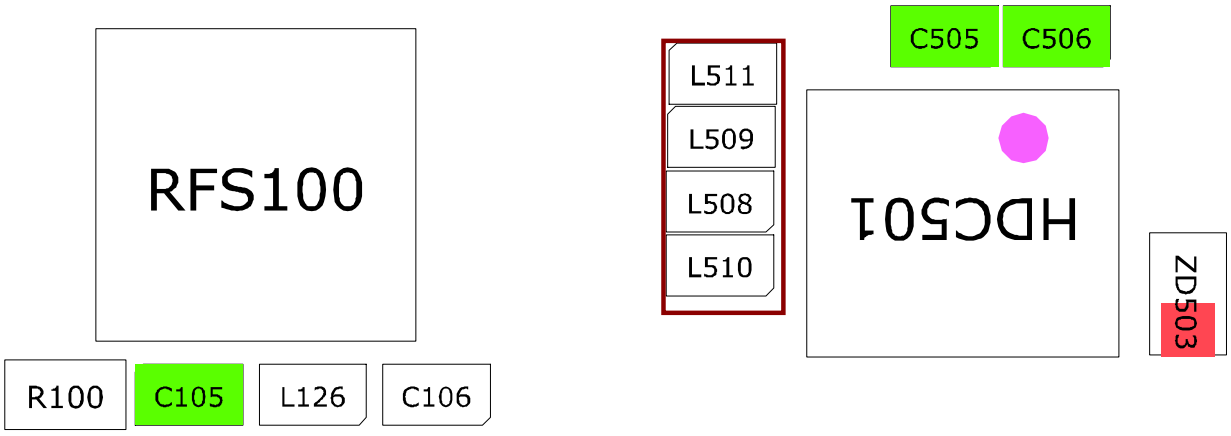
- Volume KEY



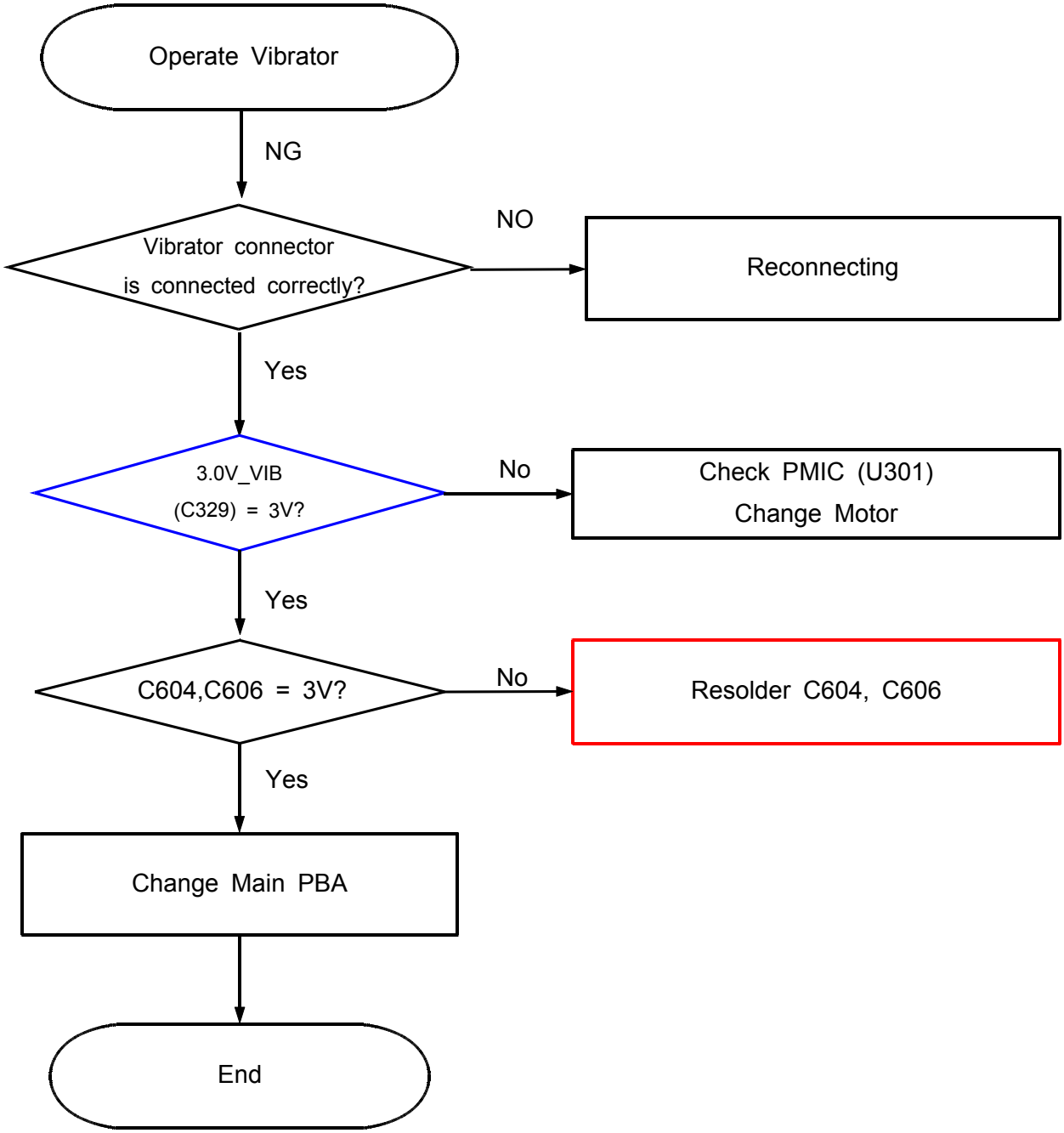
- Main Key

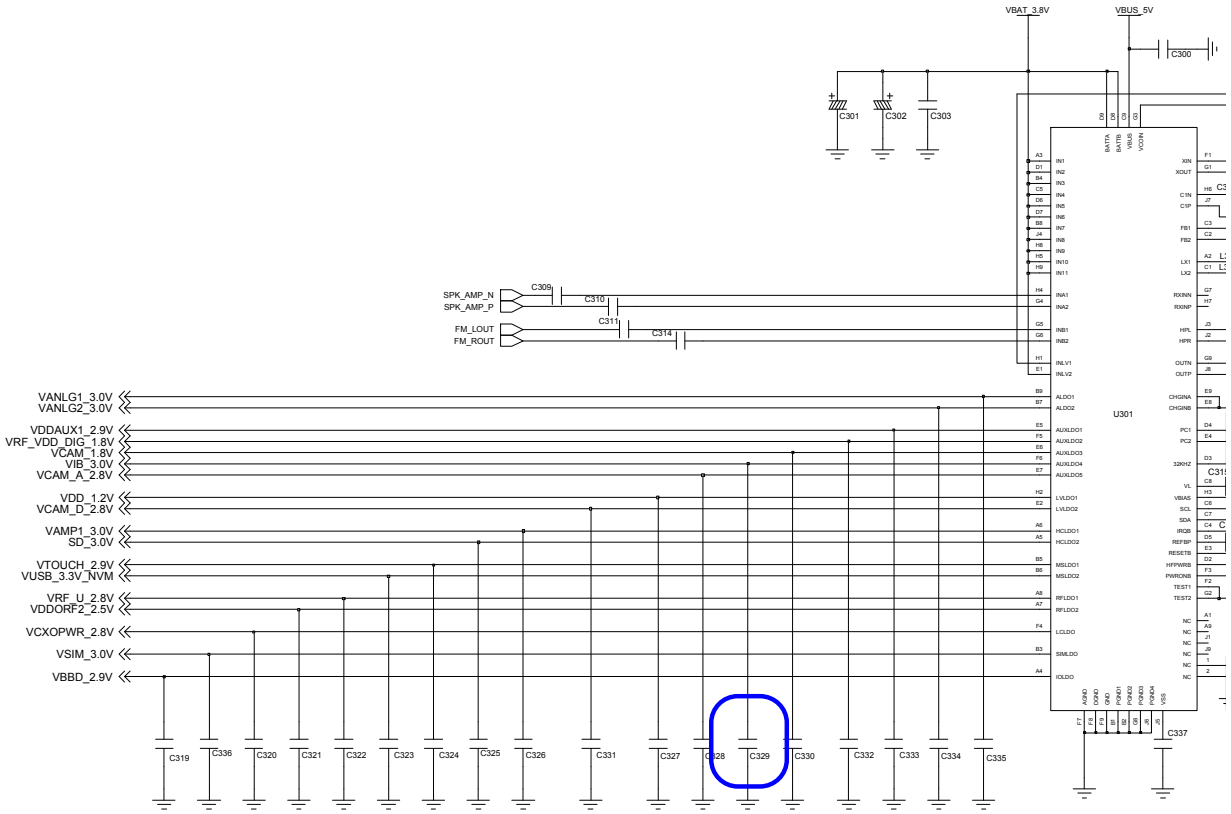


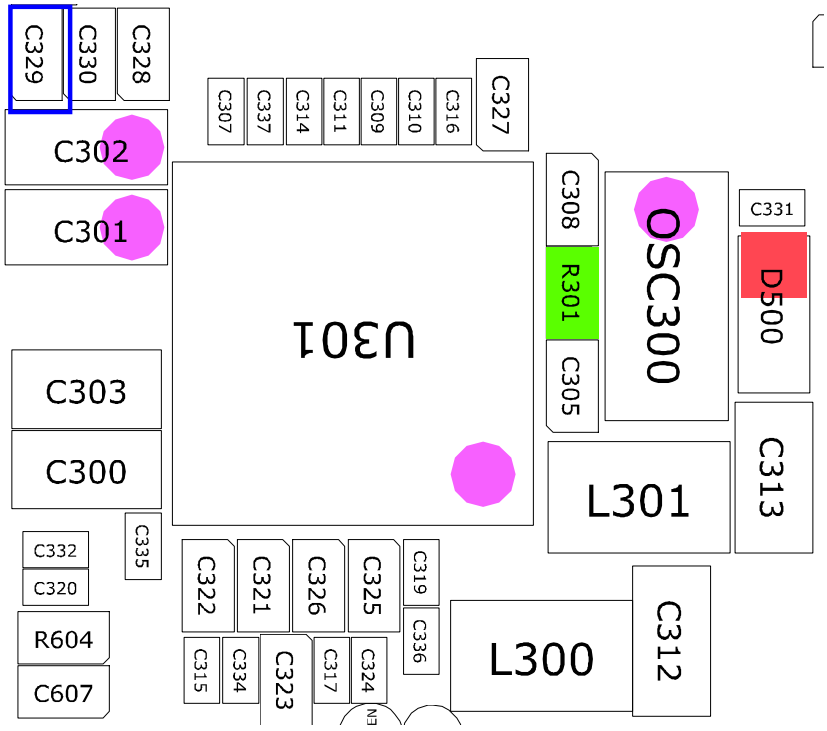




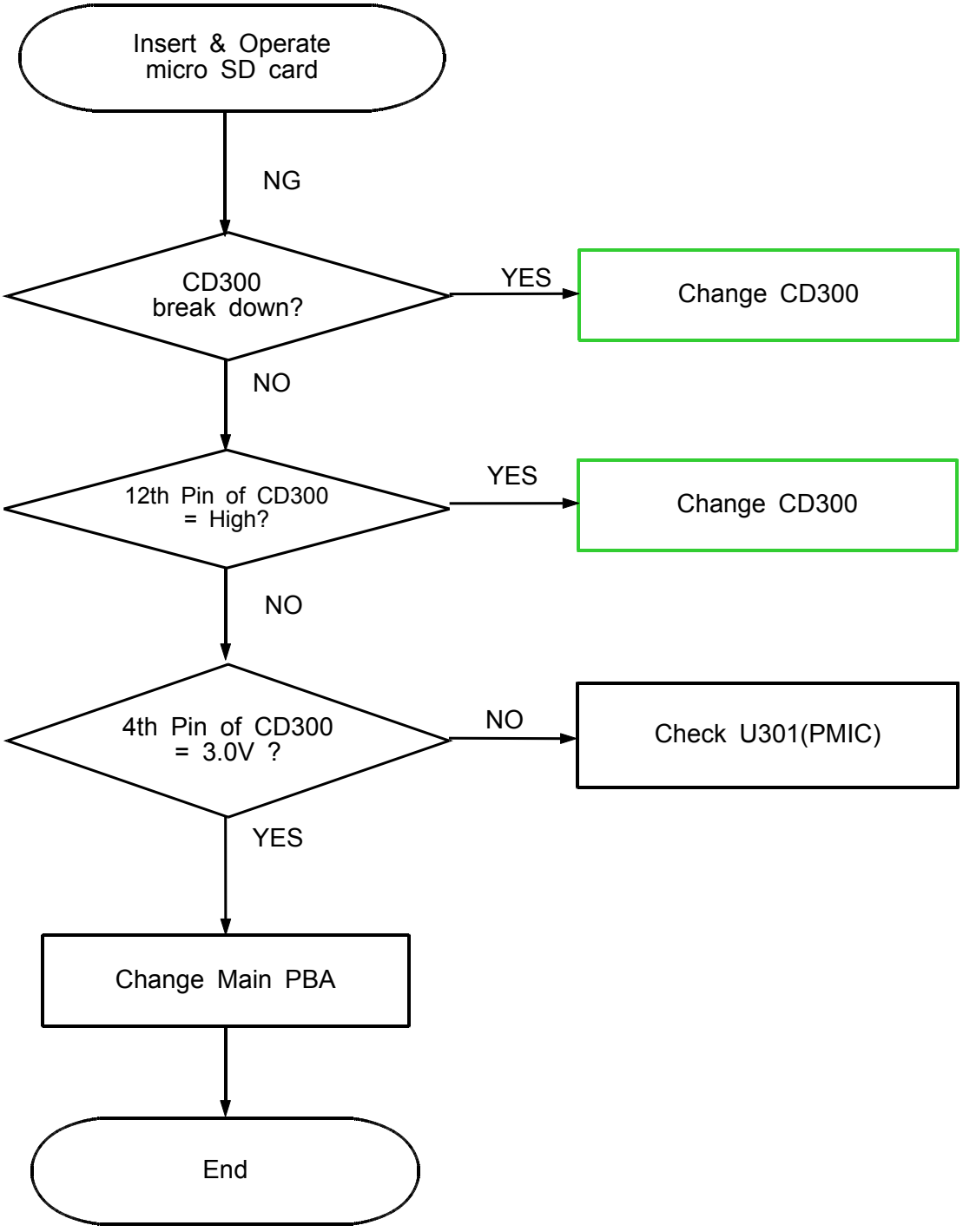
8-3-6. Vibrator

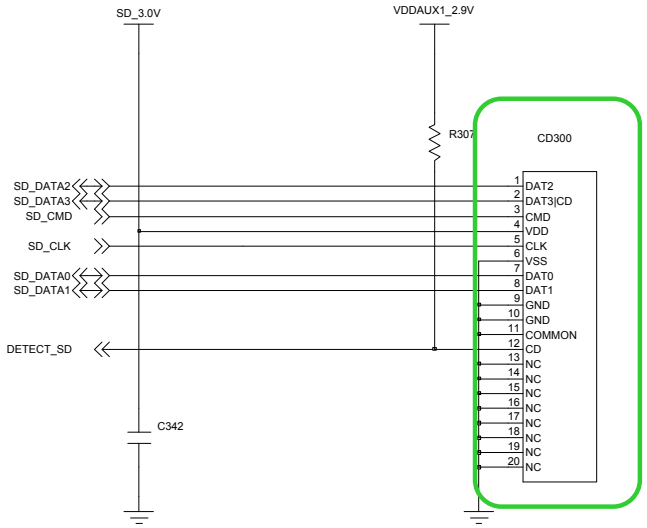


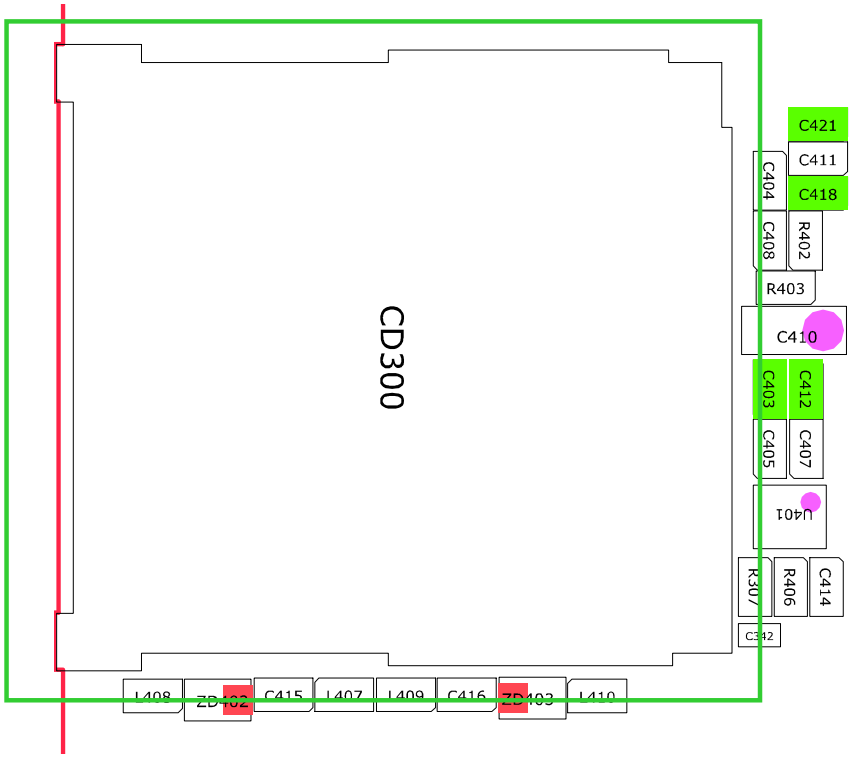




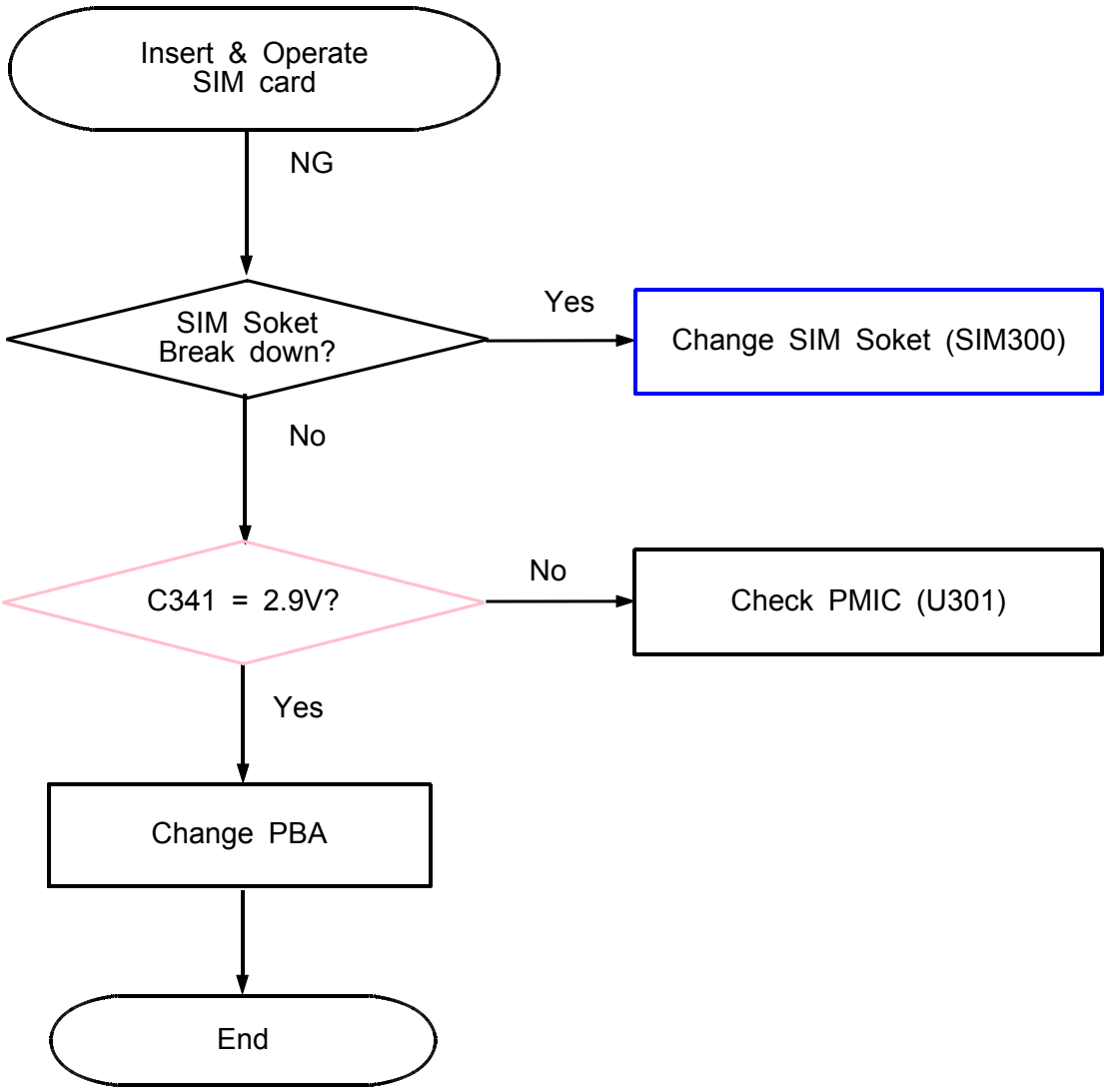
8-3-7. T-Flash Card

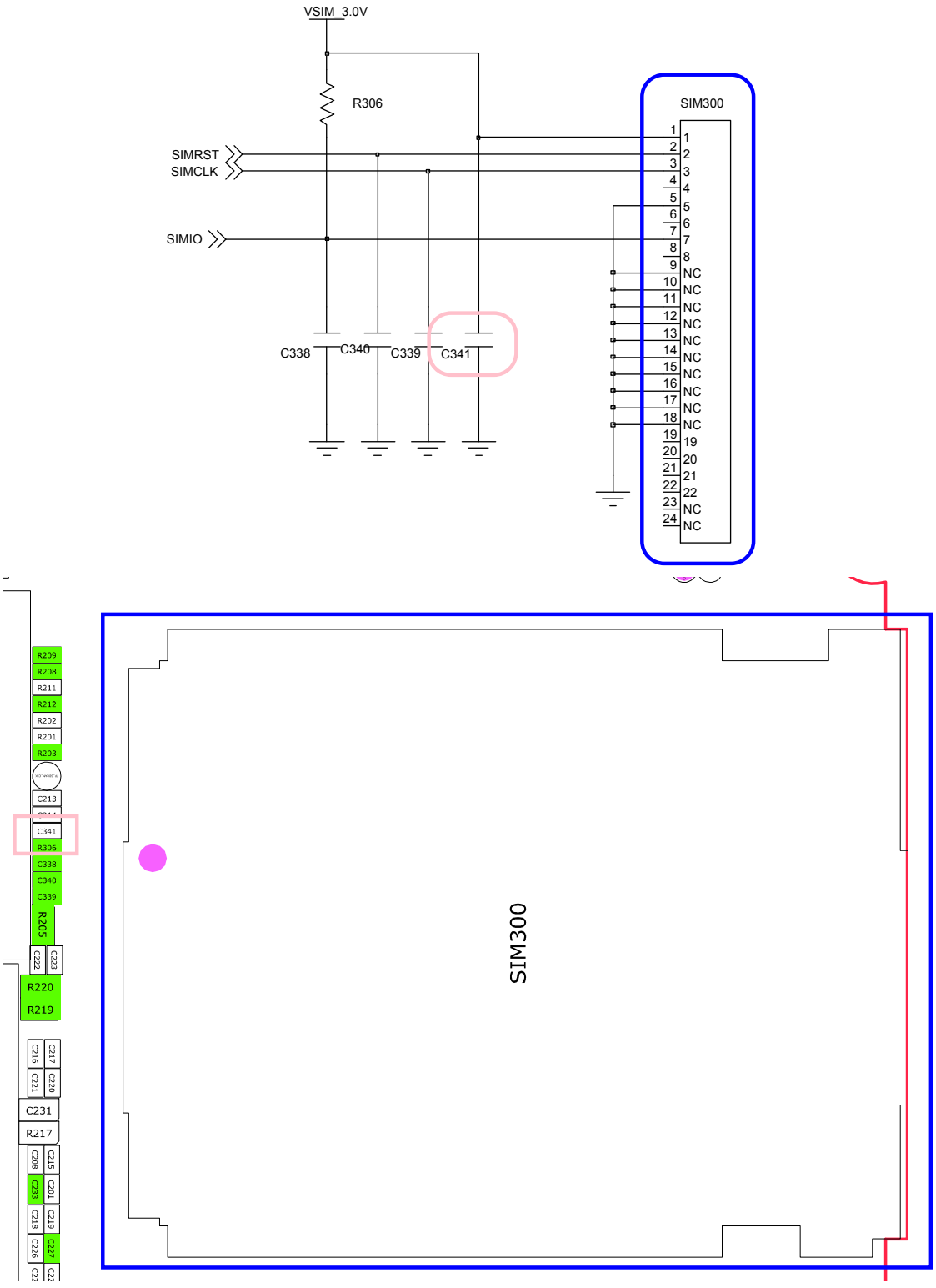




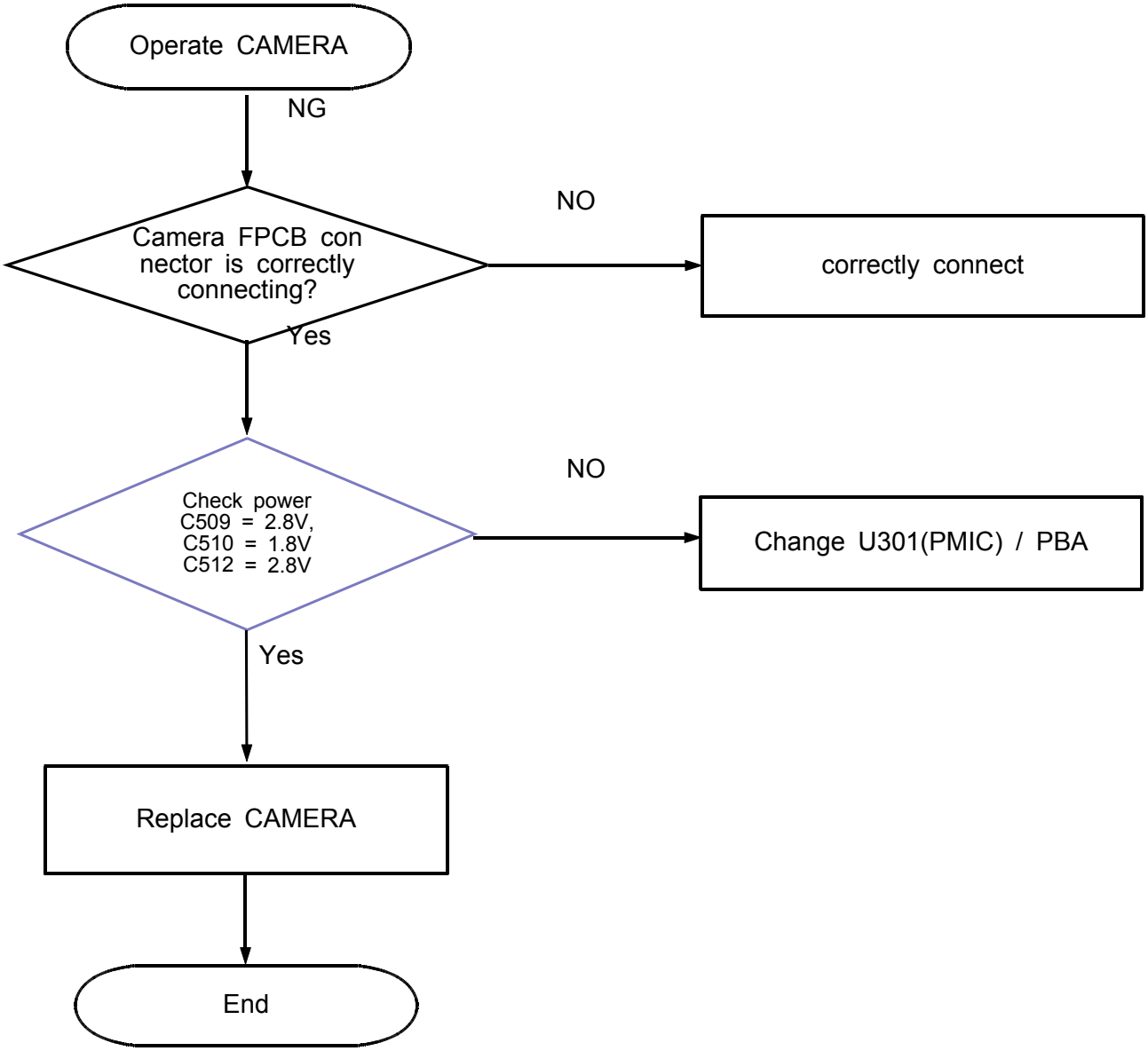


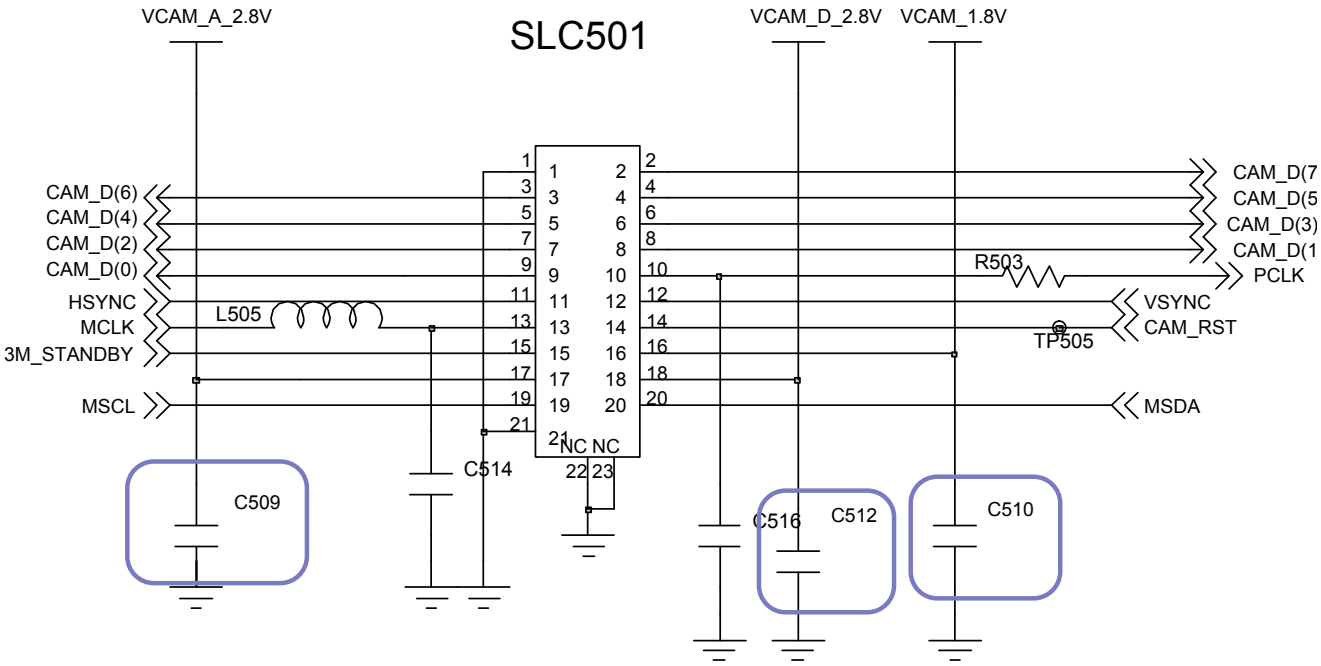
8-3-8. SIM Card

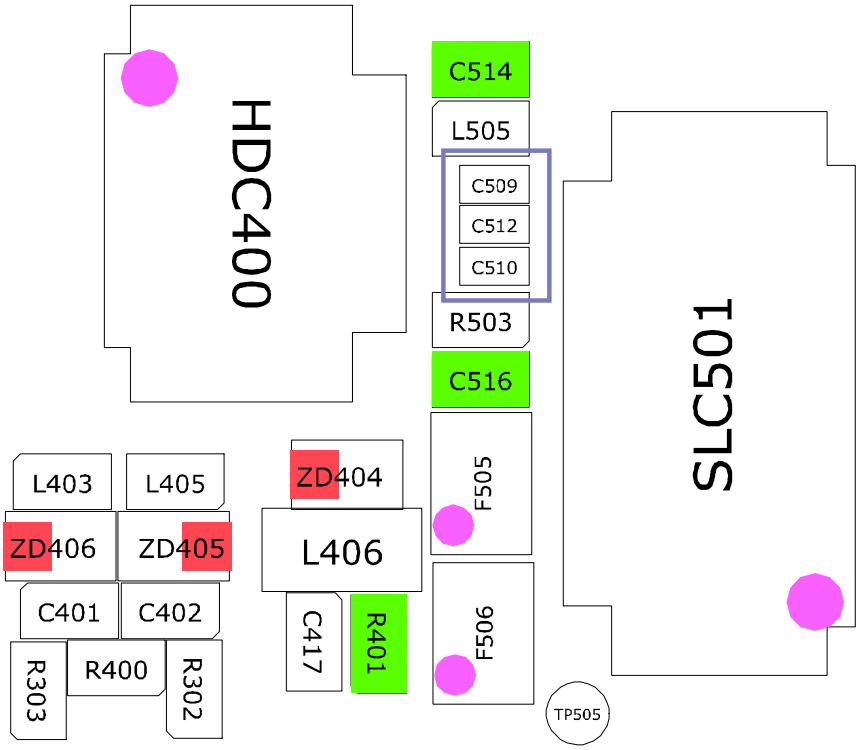




8-3-9 CAMERA

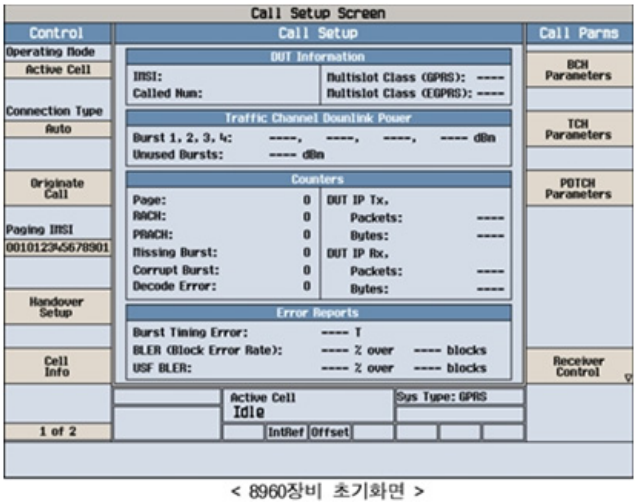






8-4. LOGIC

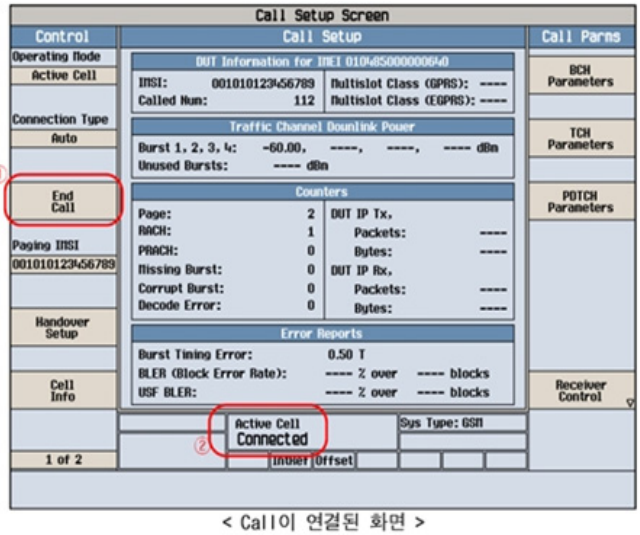
⁀ presetting 8960



< 8960장비 초기화면 >

(Rx setting)

1. Active Cell
   : select GSM or GPRS
2. Connetion Type
   : select Auto(GSM), BLER(GPRS)
3. BCH Parameter
   : select measuring band (DCS or EGSM)
4. Cell power
   : -60dBm



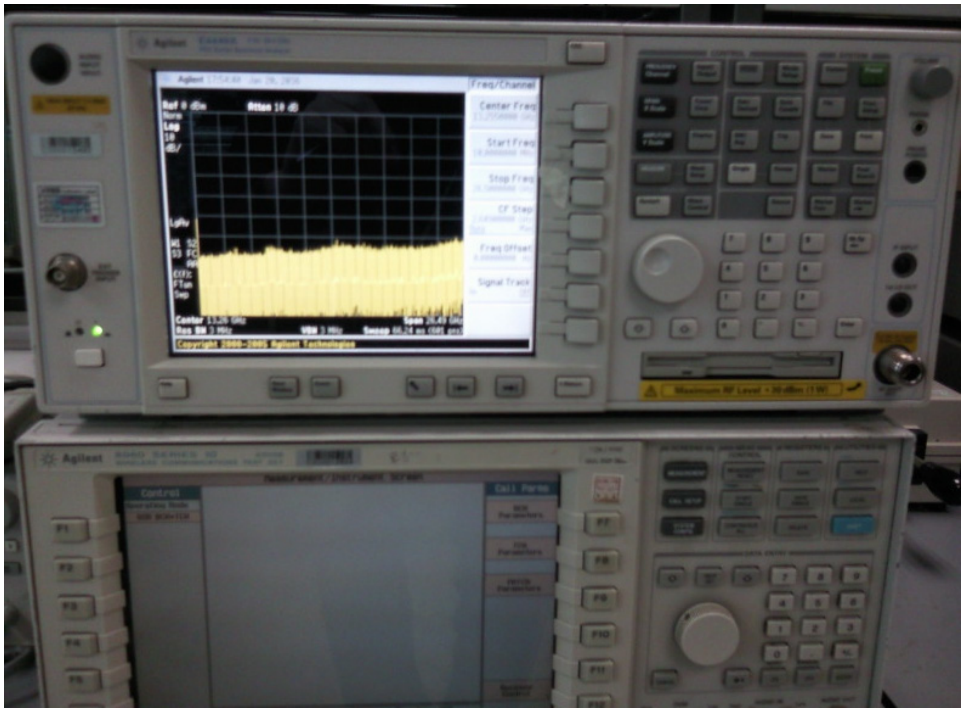
< Call이 연결된 화면 >

(Tx setting)

⁀ After setting 8960 (EGSM / DCS)

1. After setting, prepare the call setup Display
2. Using an Originate Call, make a call.
3. Confirm the display "connected"
4. start the measuring

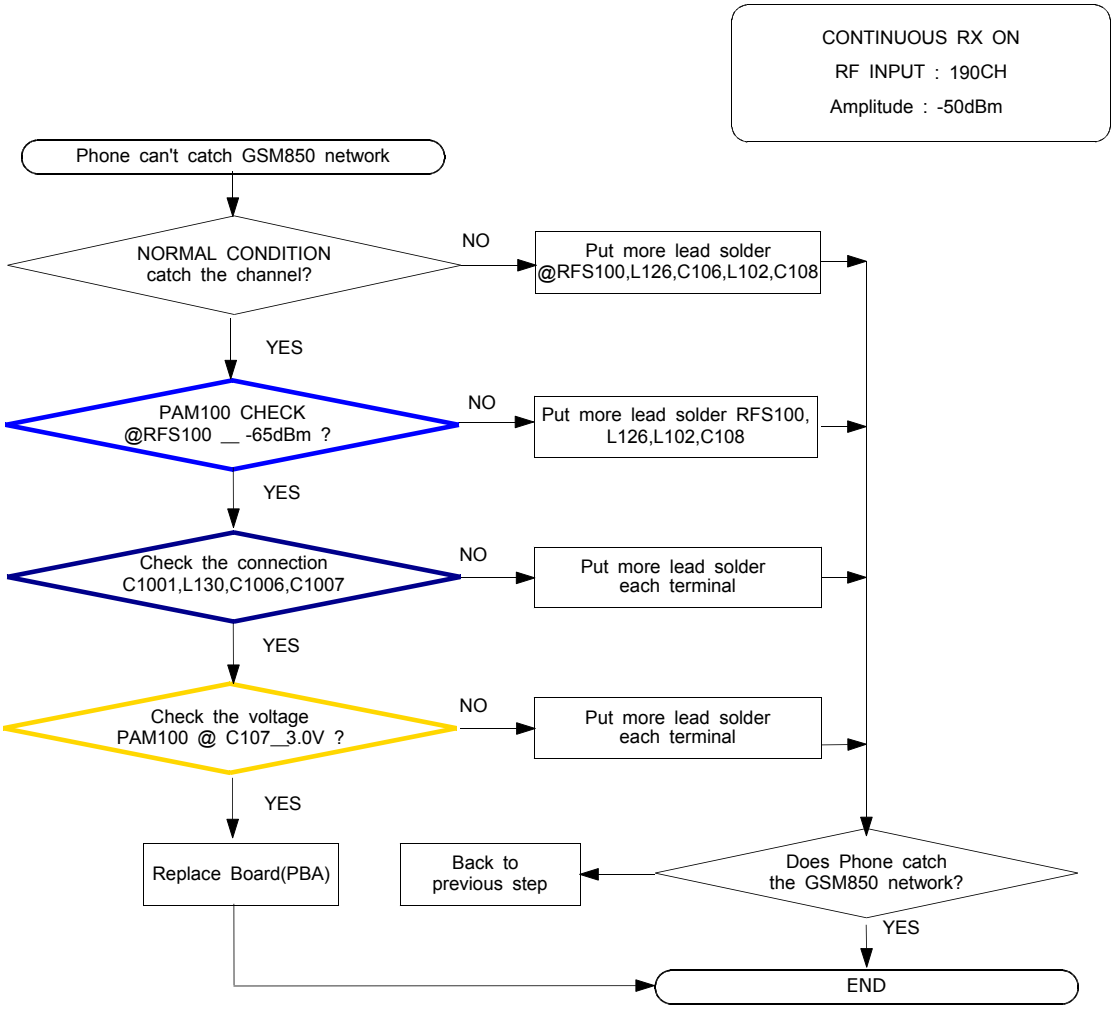
⁀ 8960 & spectrum analyzer (down & up at picture)



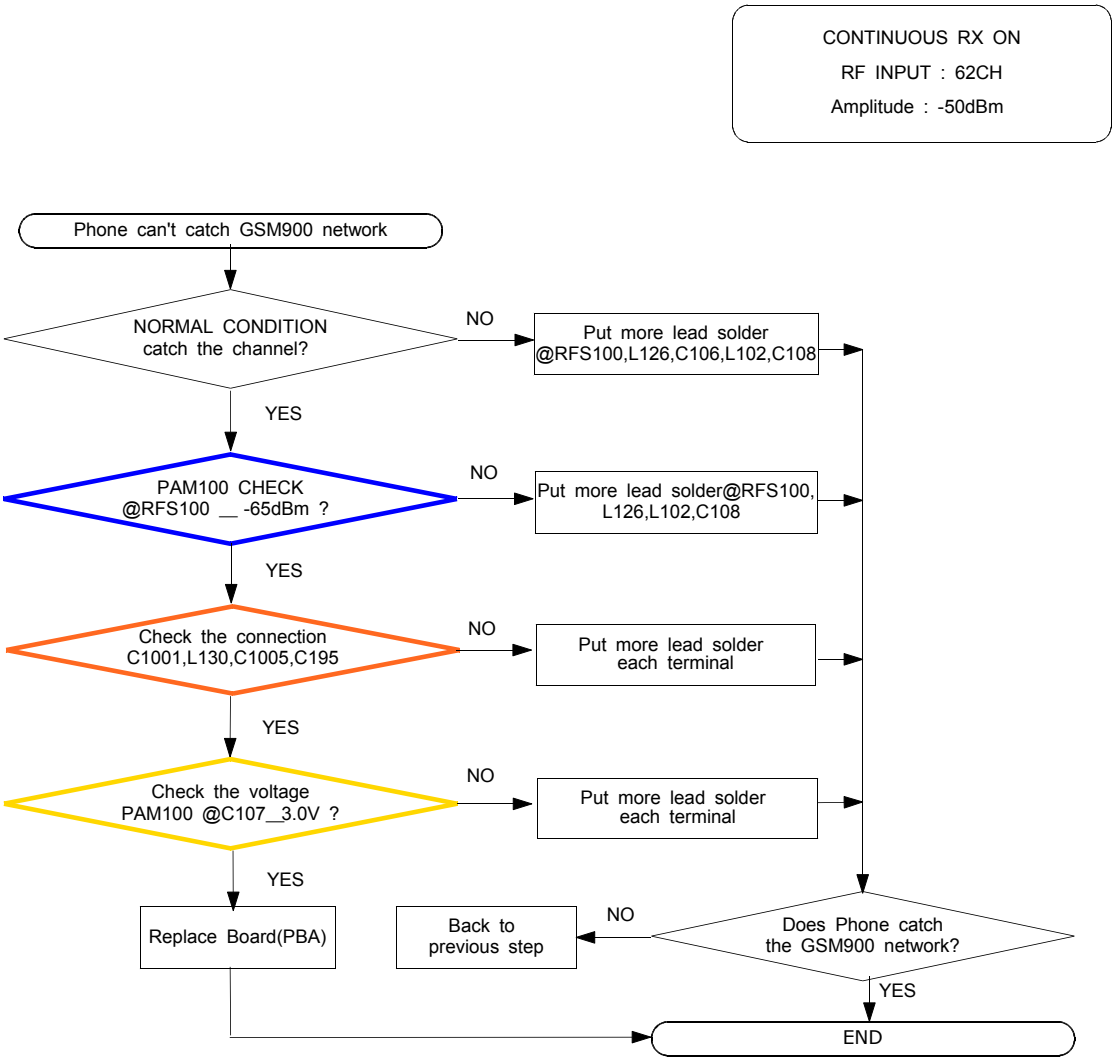
- spectrum analyzer : testing method = the way using an Osciliscope

- 8960 : connect using RF Cable between 8960 & RF Connector in board.

8-4-1. GSM850 RX

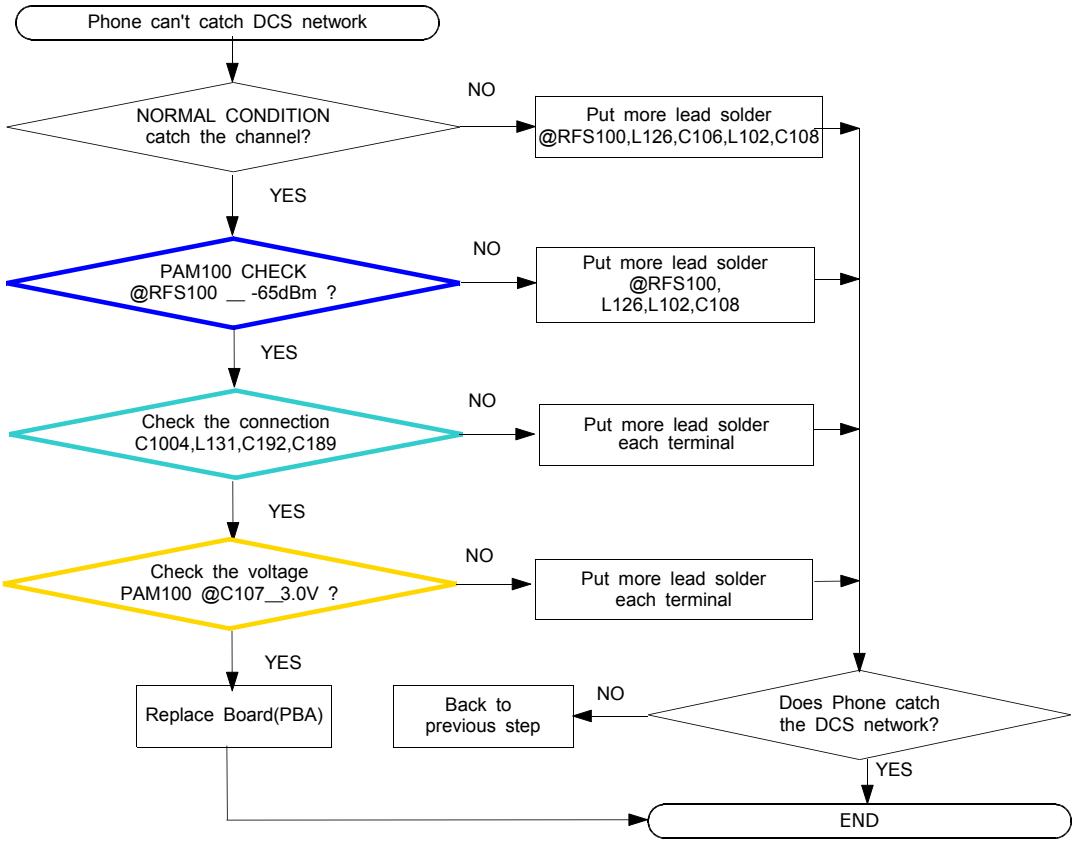


8-4-2. GSM900 RX



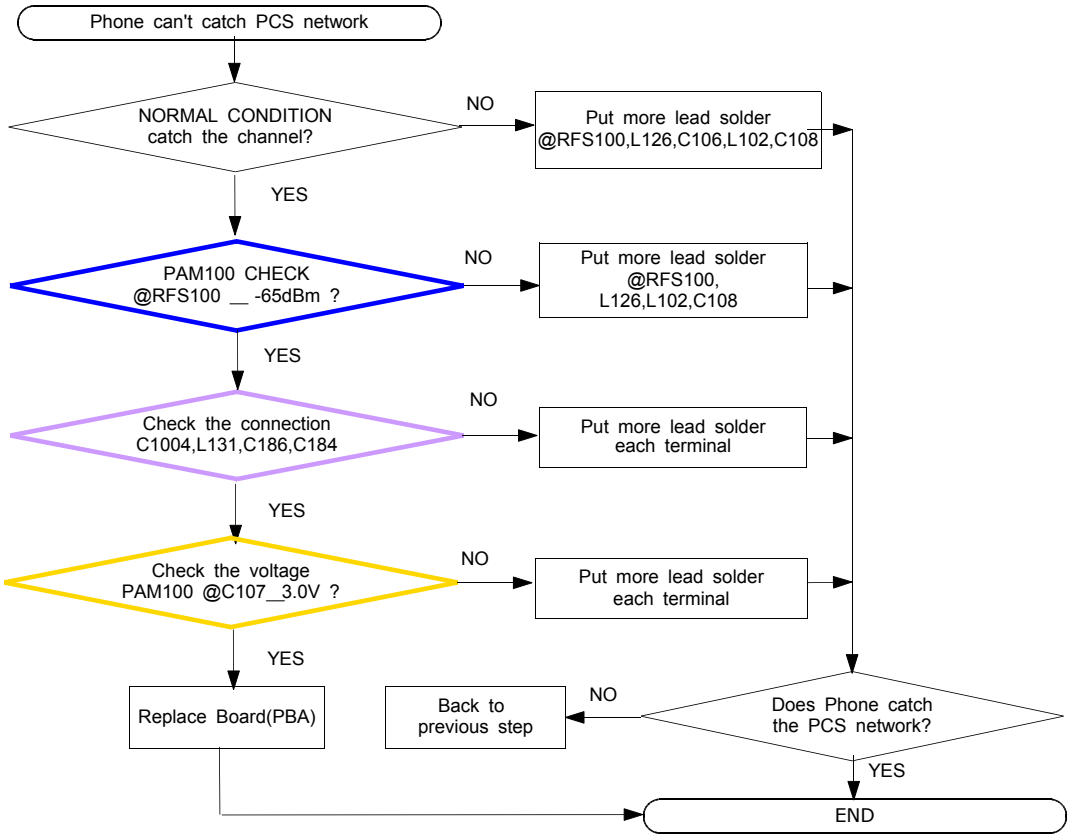
8-4-3. DCS RX

CONTINUOUS RX ON
RF INPUT : 698CH
Amplitude : -50dBm



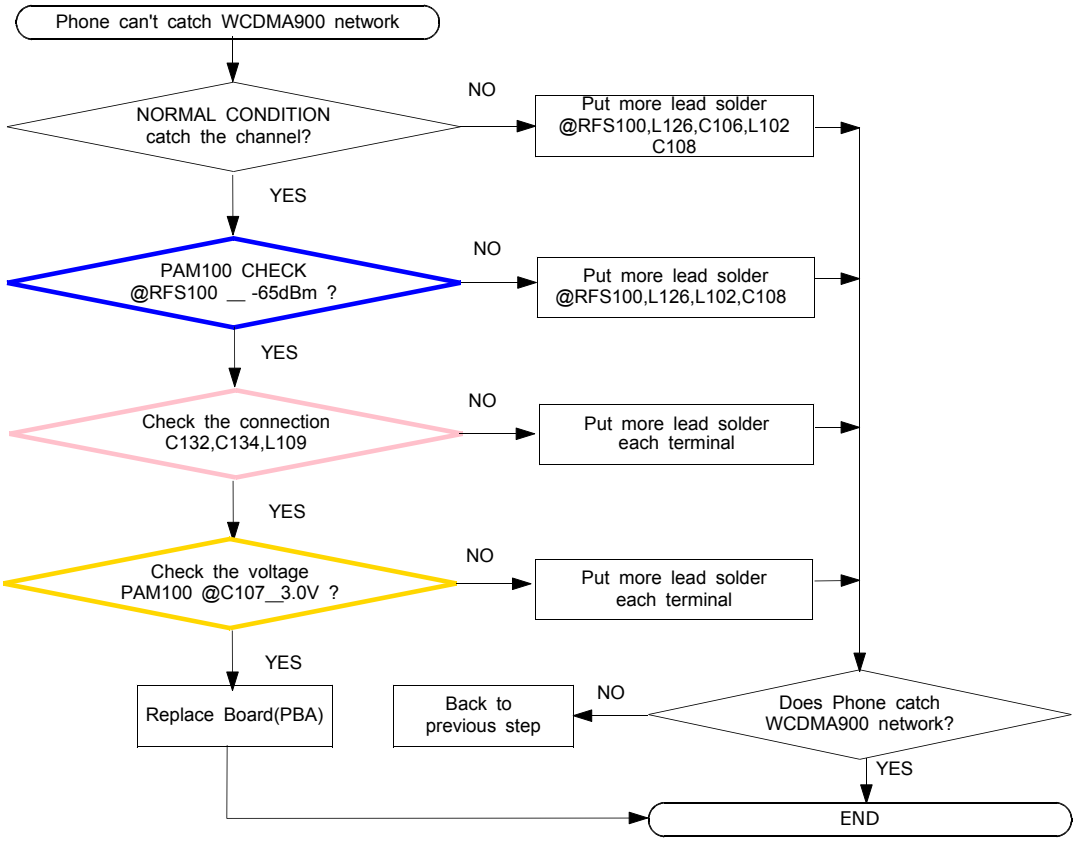
8-4-4. PCS RX

CONTINUOUS RX ON
RF INPUT : 644CH
Amplitude : -50dBm



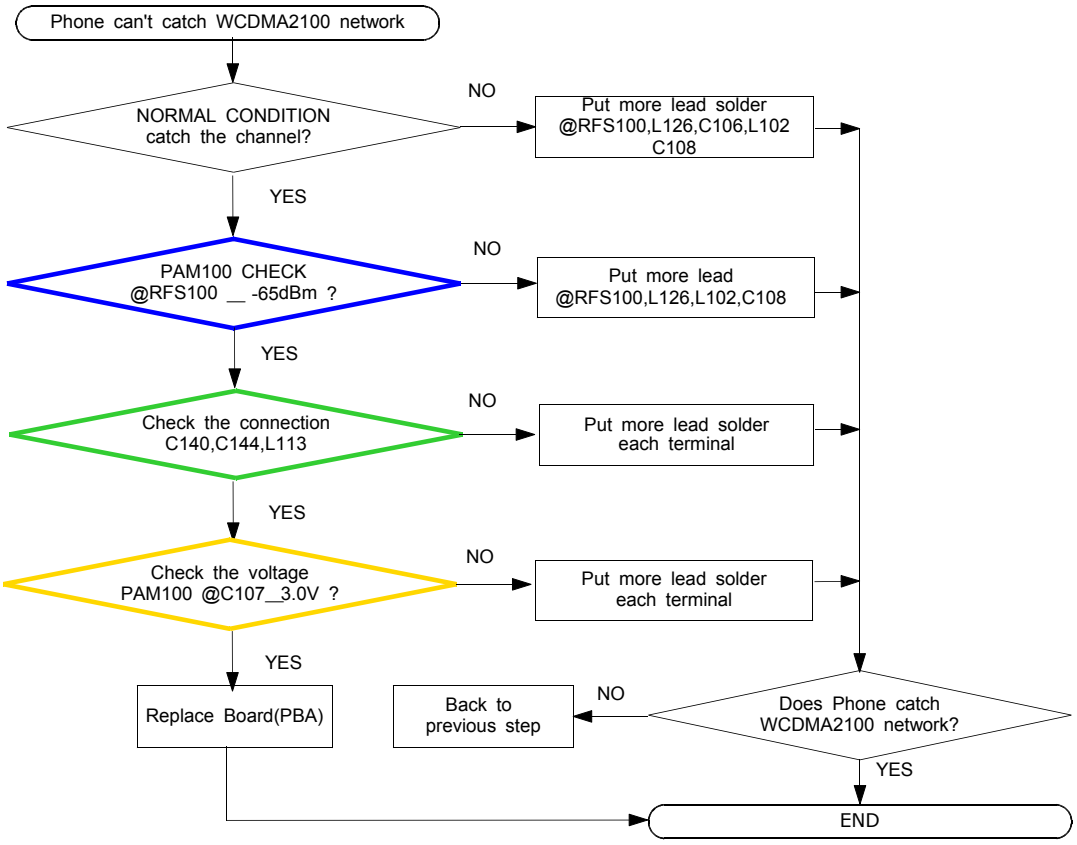
8-4-5. WCDMA Band 8 RX

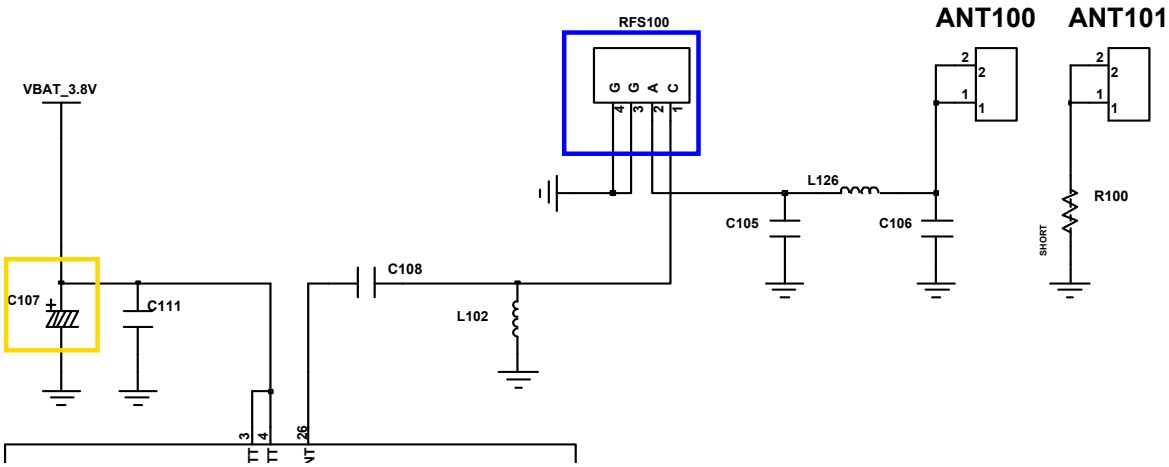
CONTINUOUS RX ON
RF INPUT : 10700CH
Amplitude : -50dBm

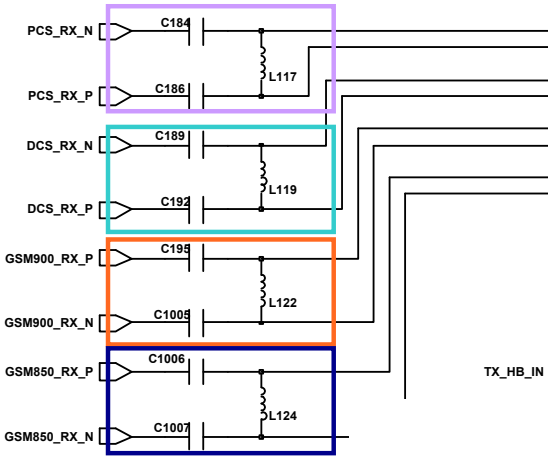


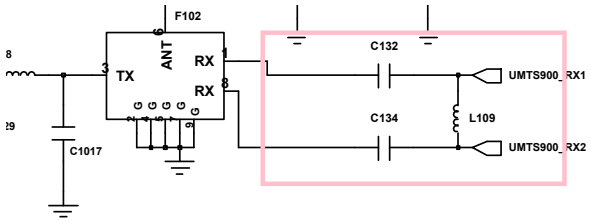
8-4-6. WCDMA Band 1 RX

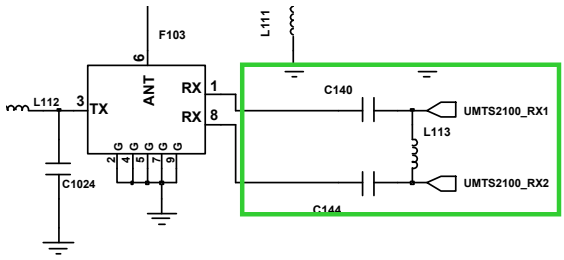
CONTINUOUS RX ON
RF INPUT : 3013CH
Amplitude : -50dBm

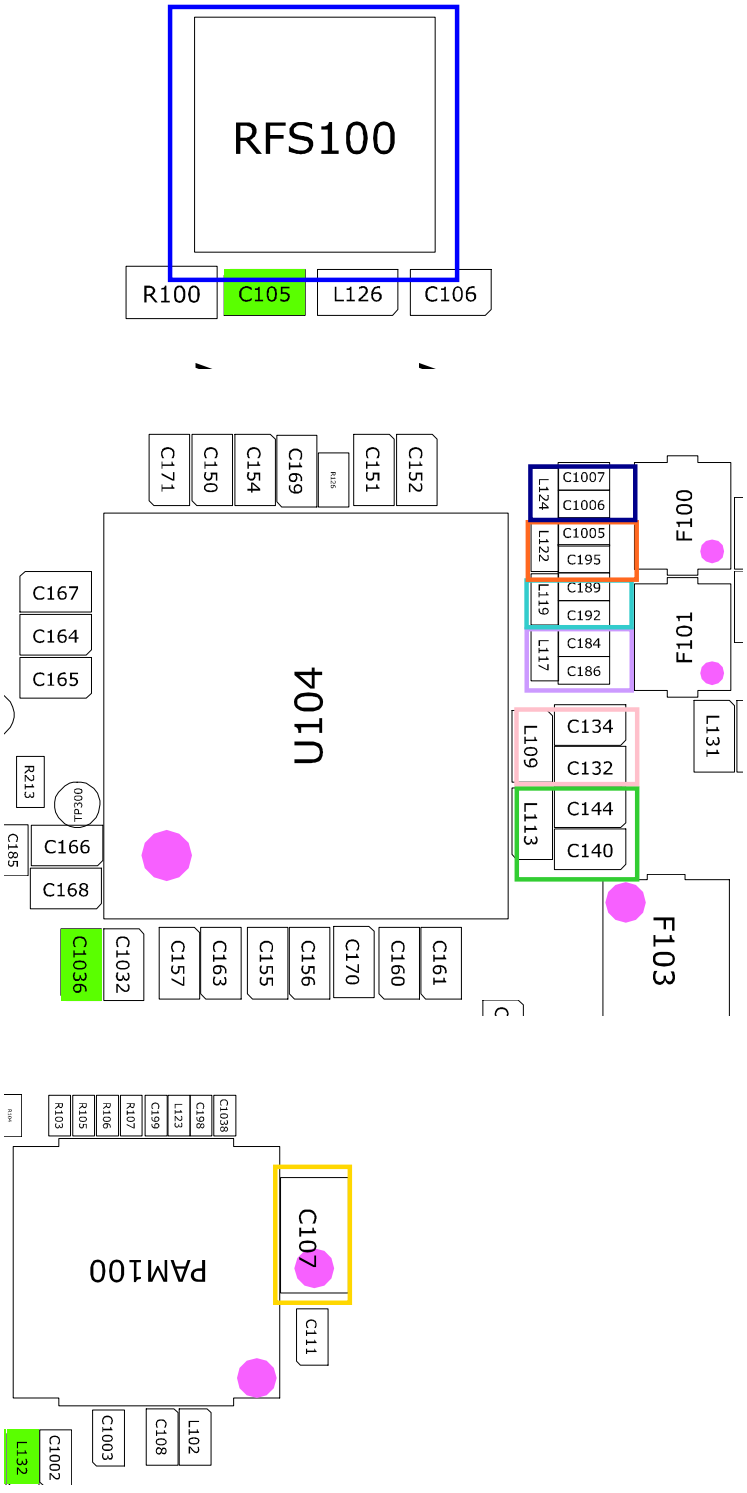




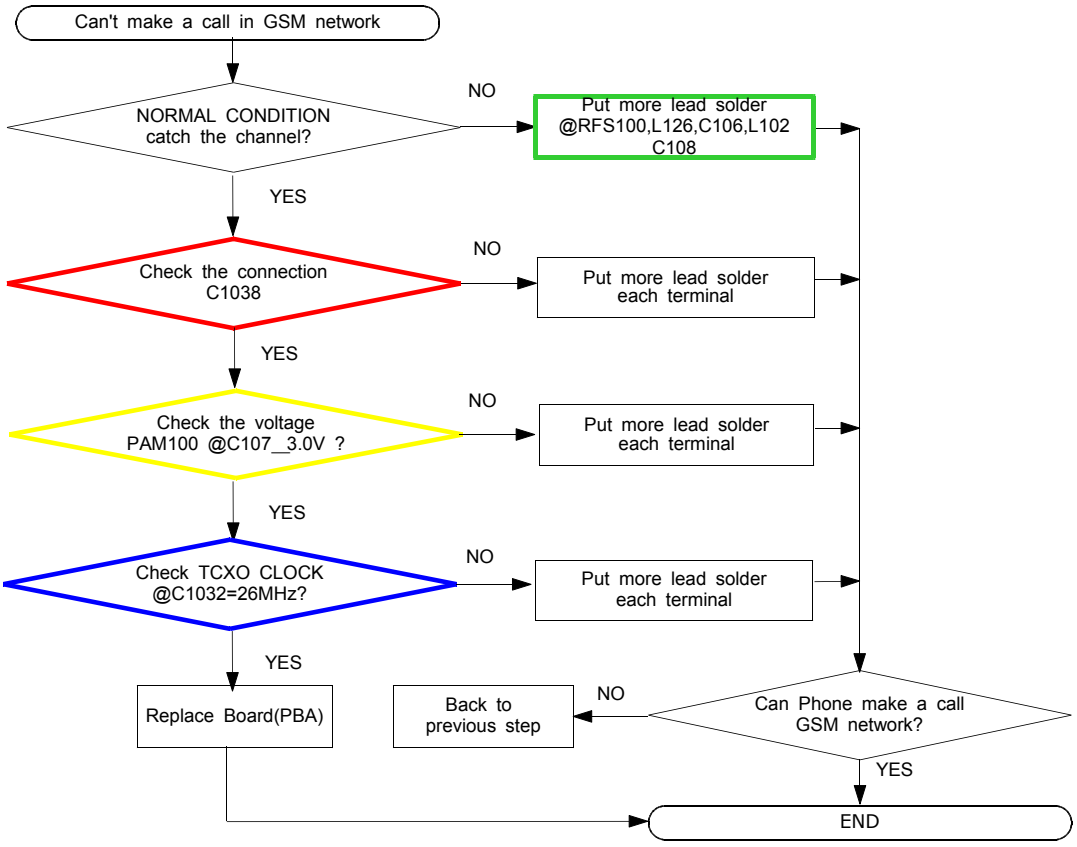




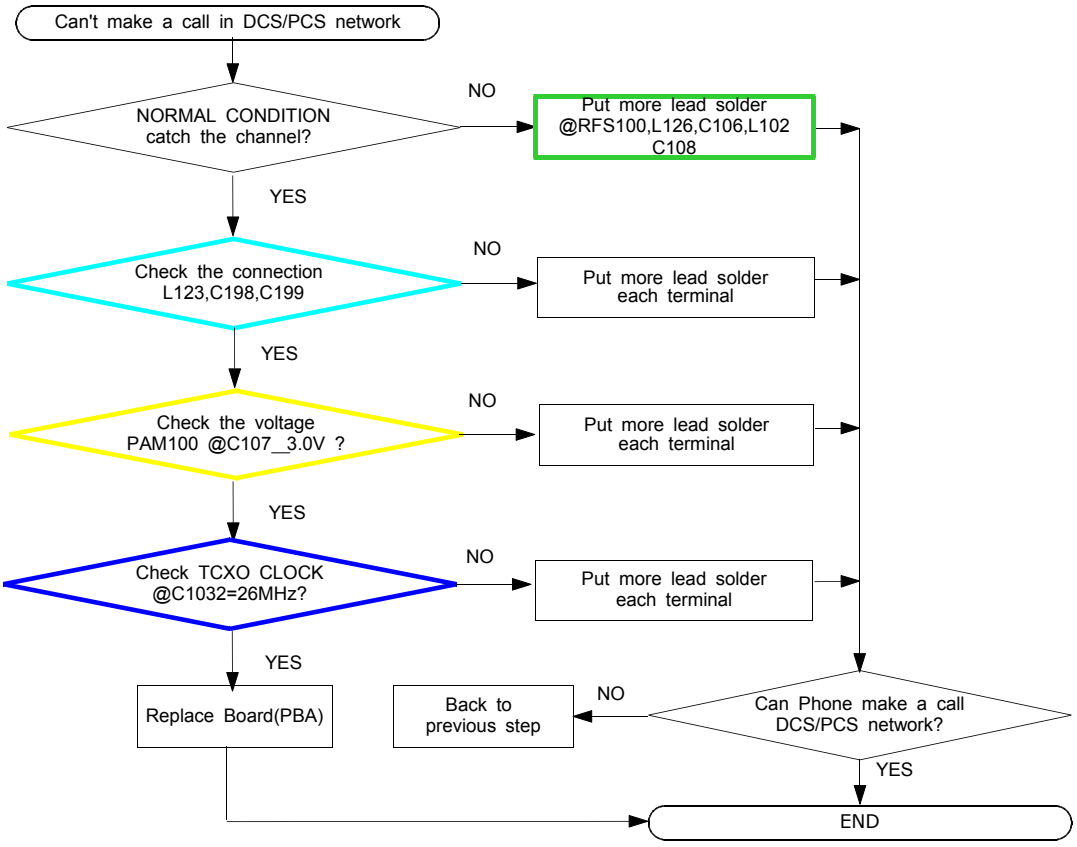




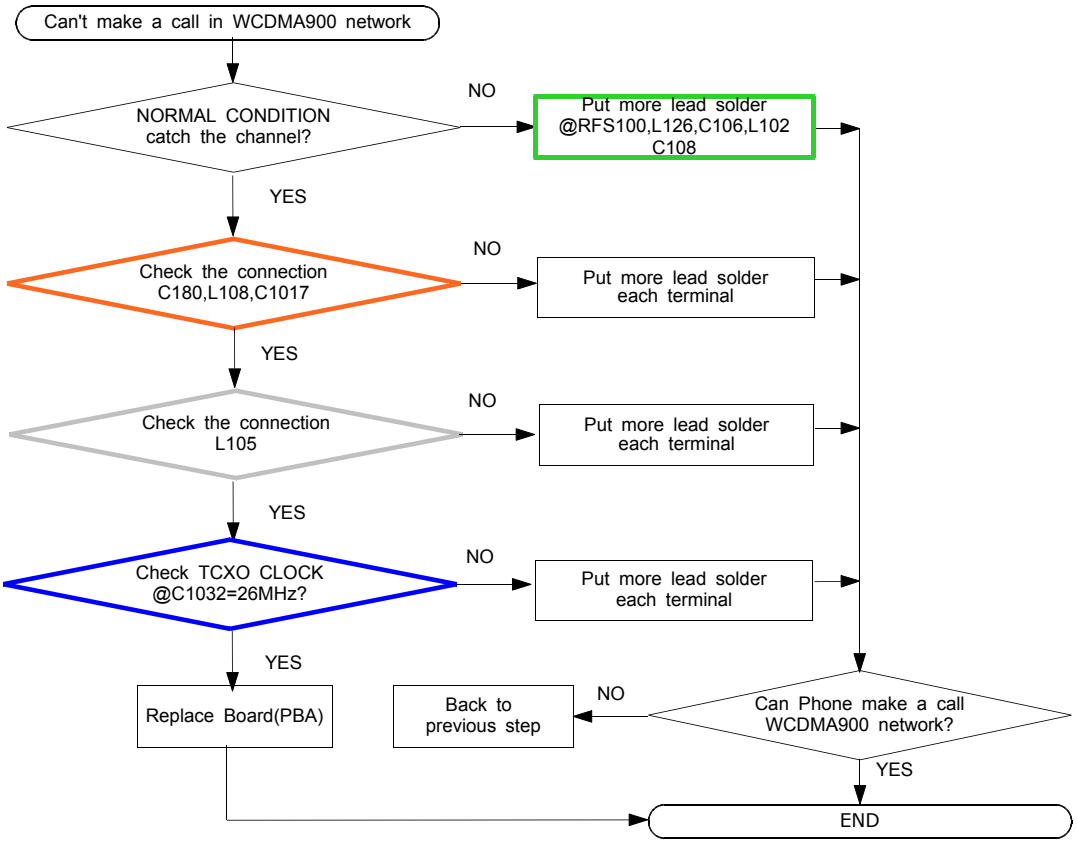
8-4-7. GSM850/900 TX



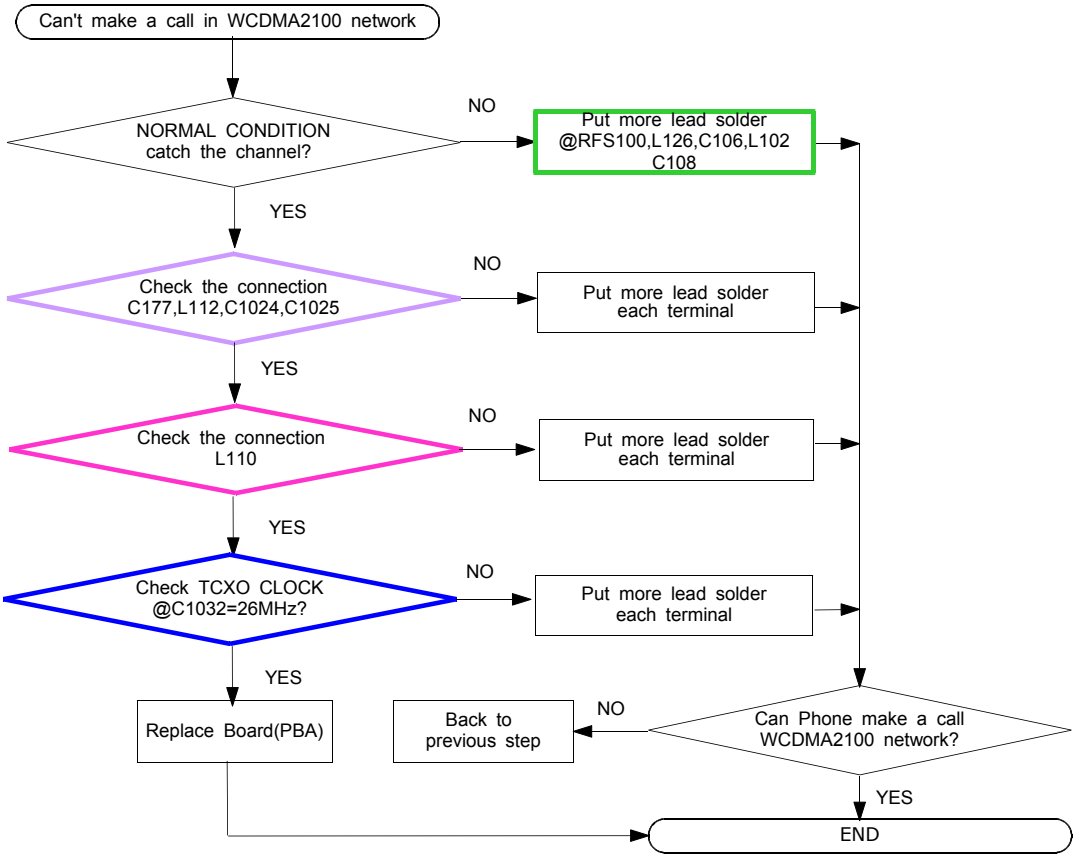
8-4-8. DCS/ PCS TX

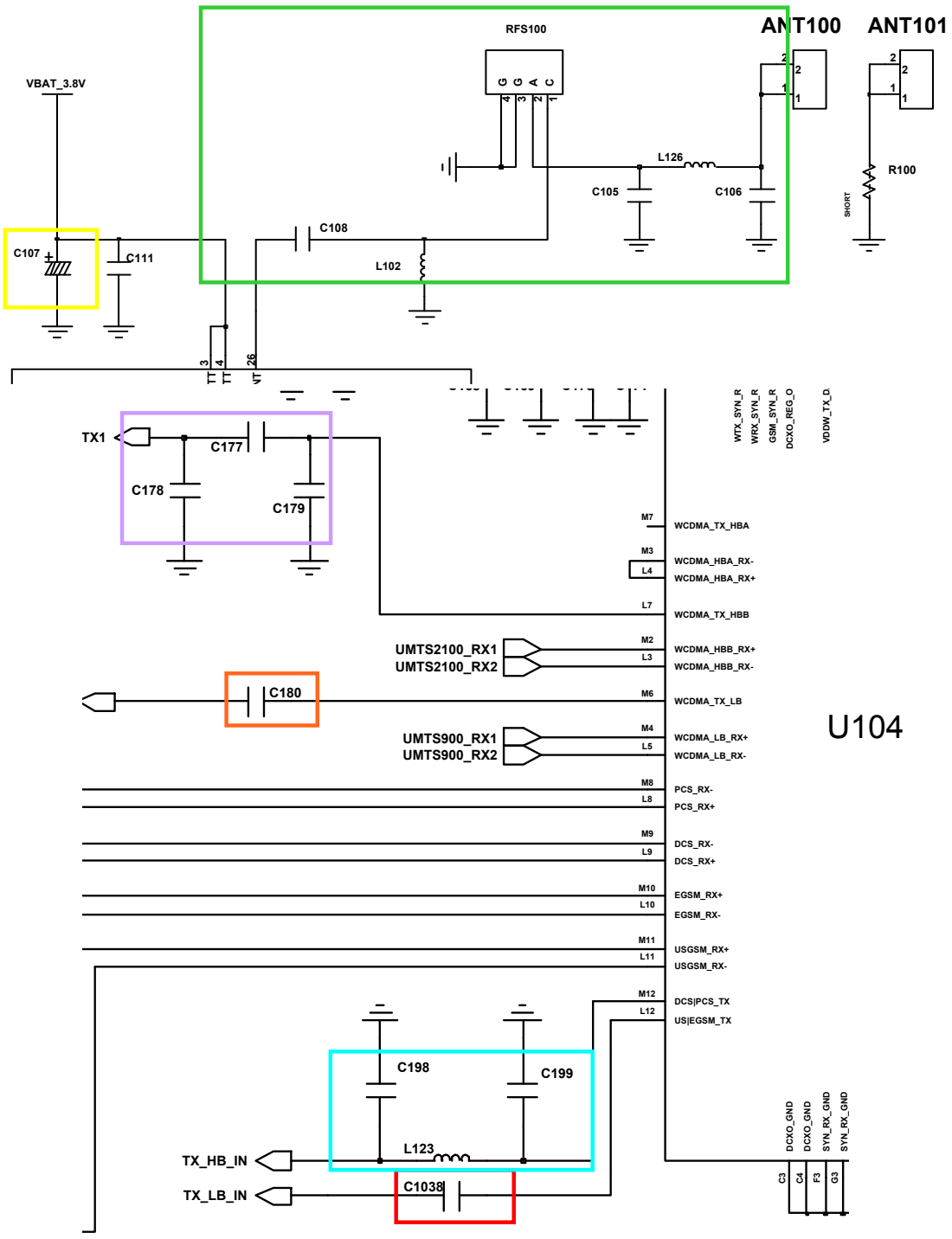


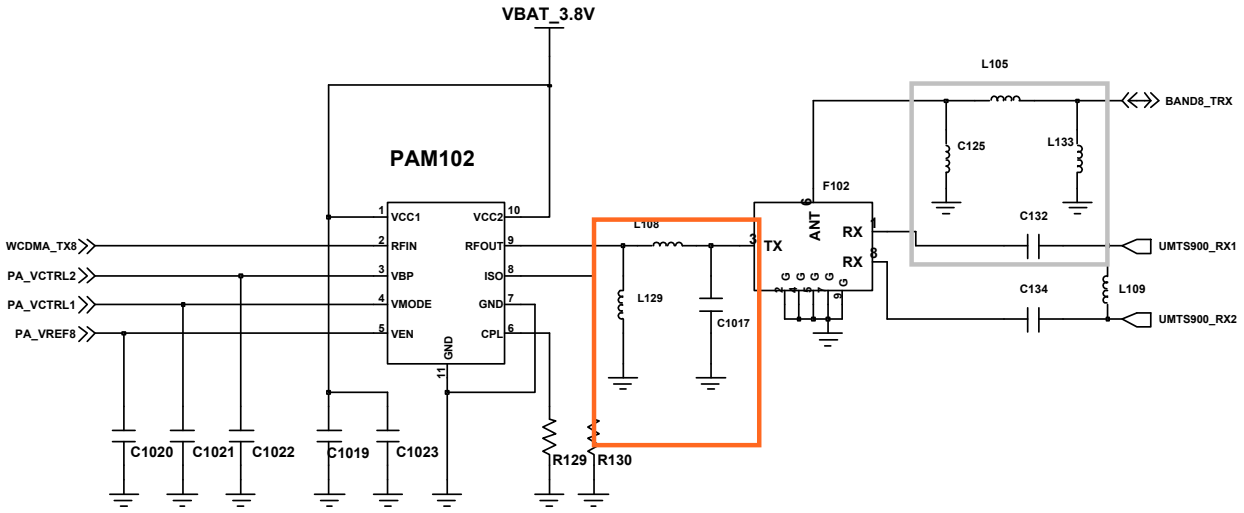
8-4-9. WCDMA BAND 8 TX

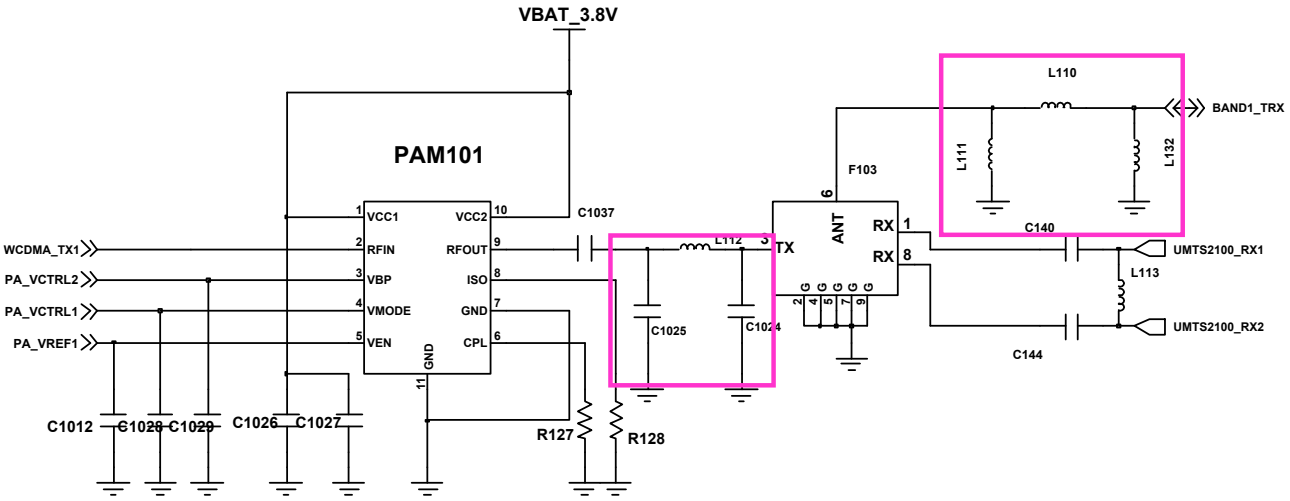


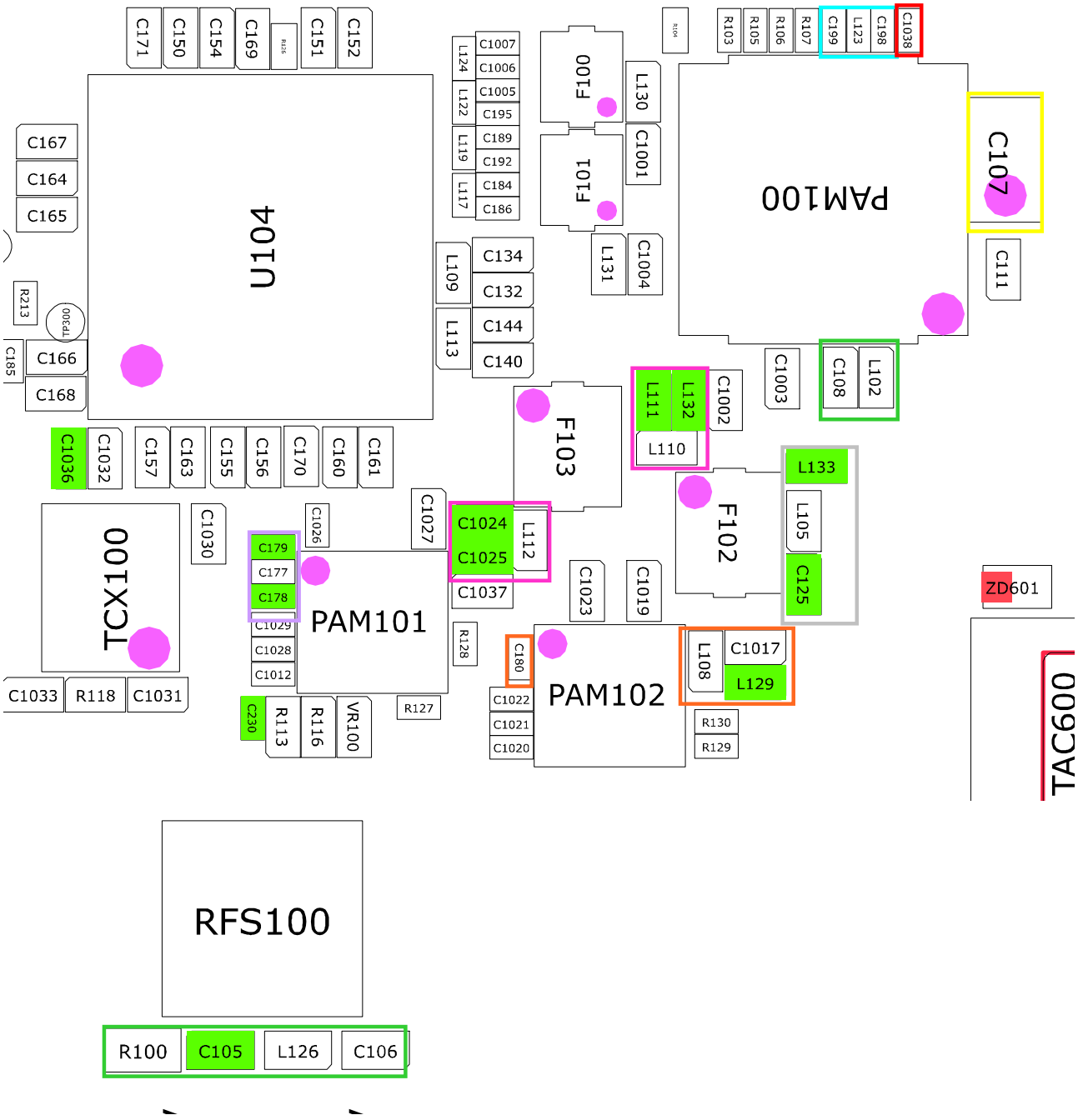
8-4-10. WCDMA BAND 1 TX



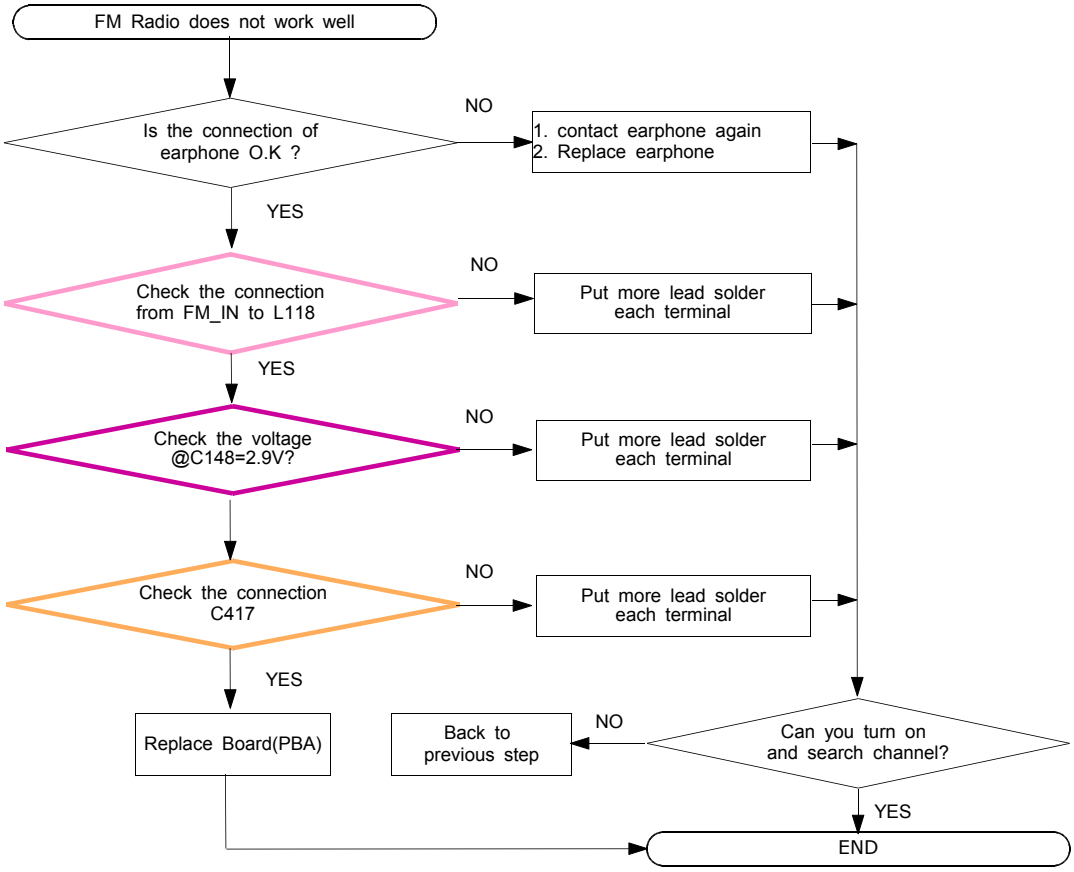


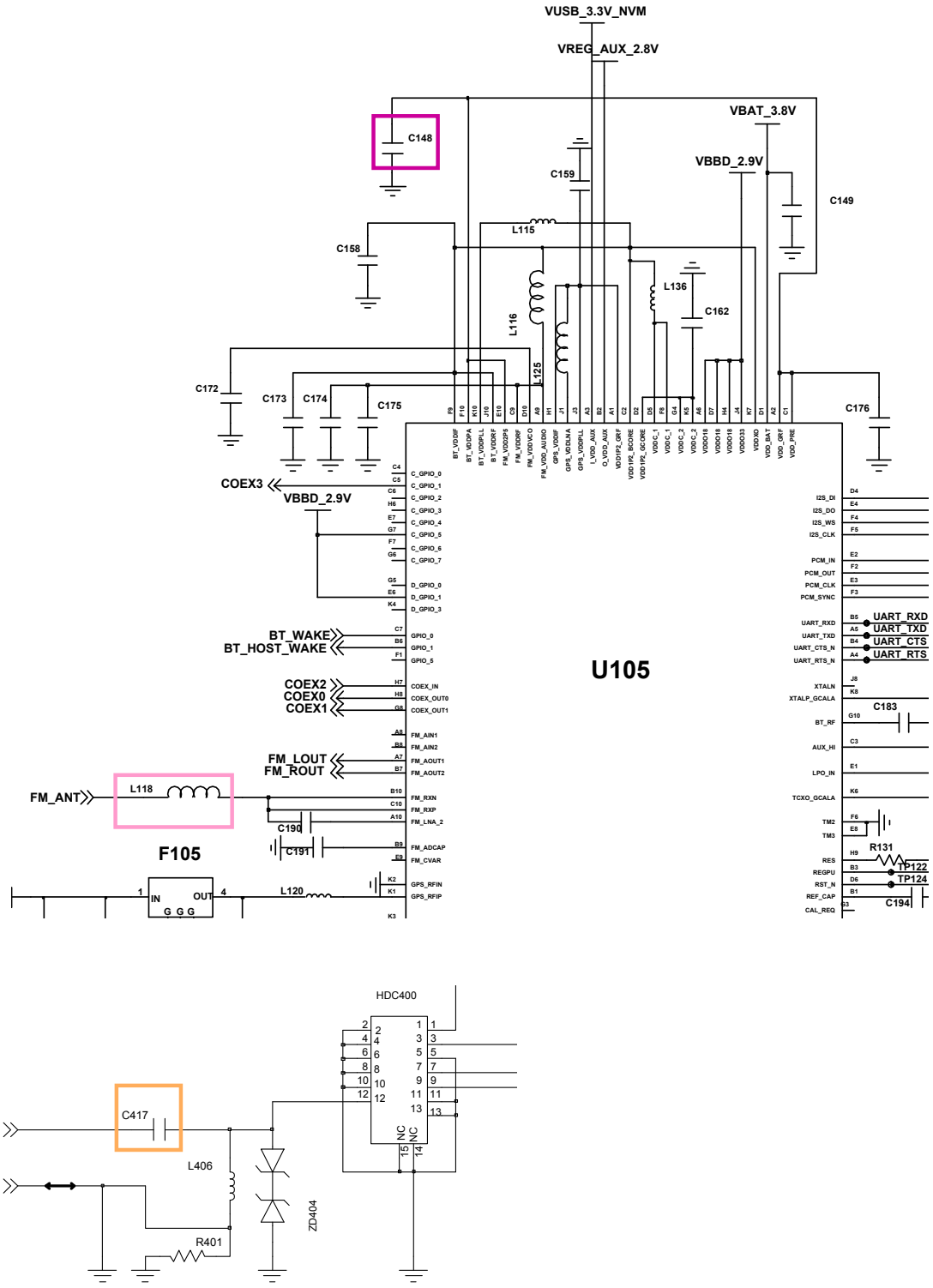


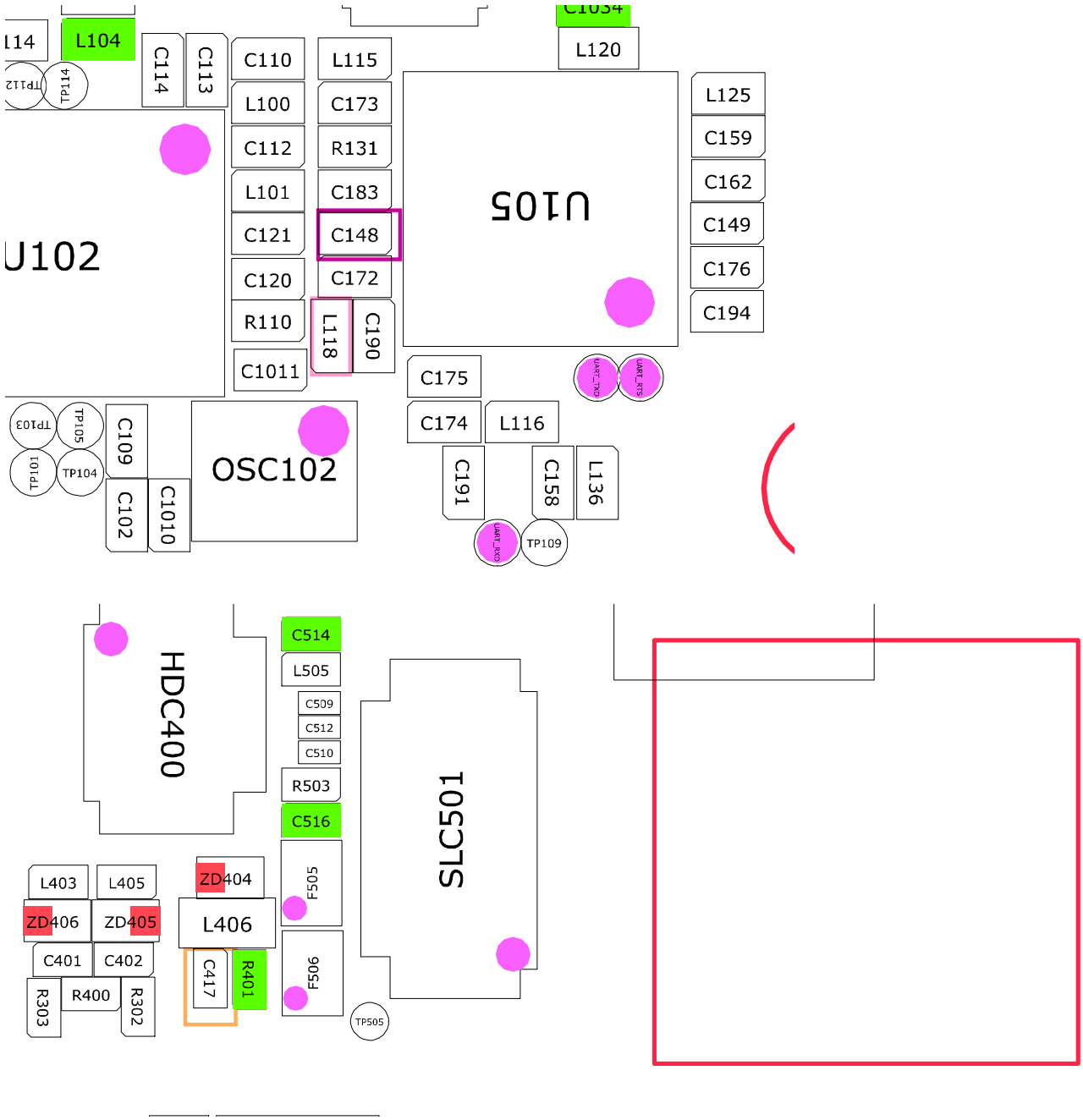




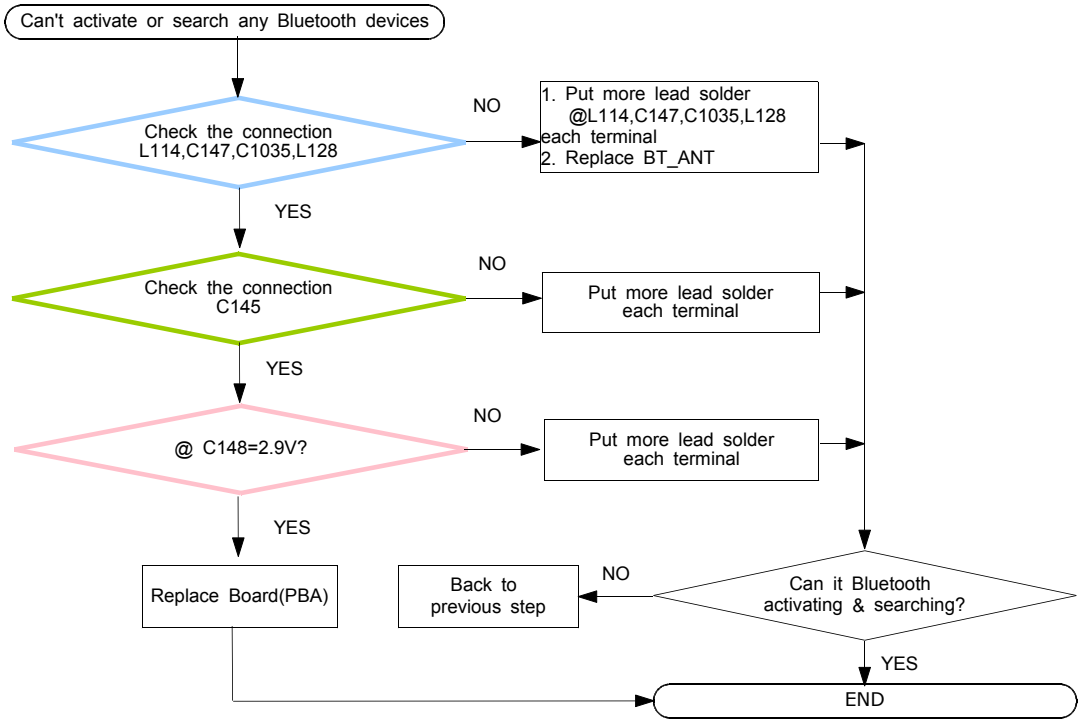
8-4-11. FM radio

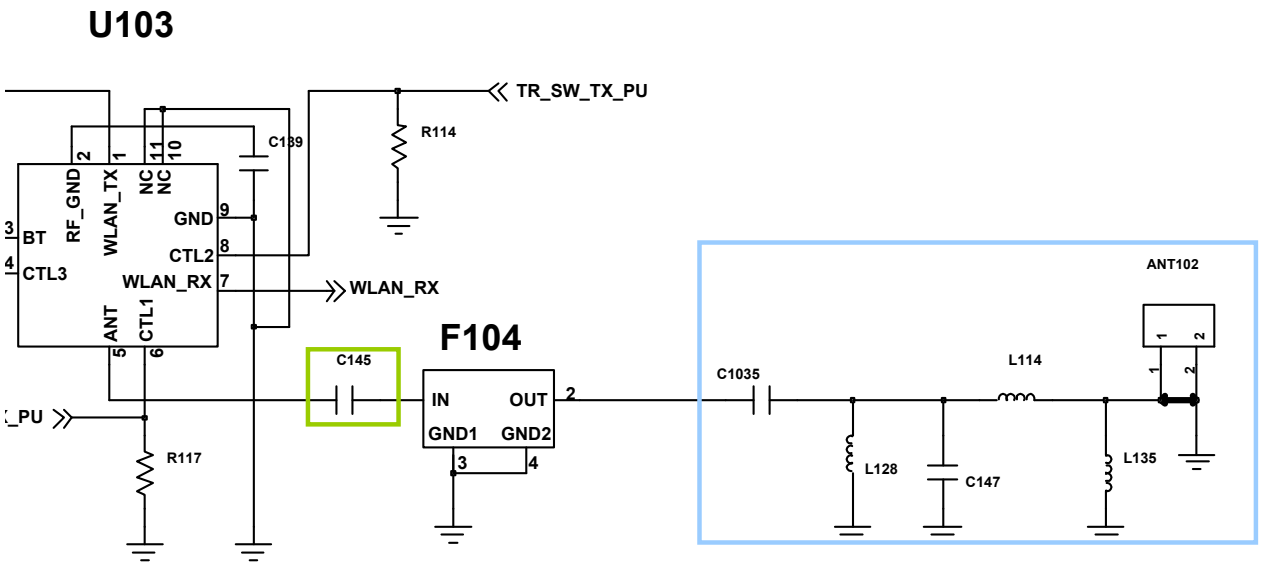


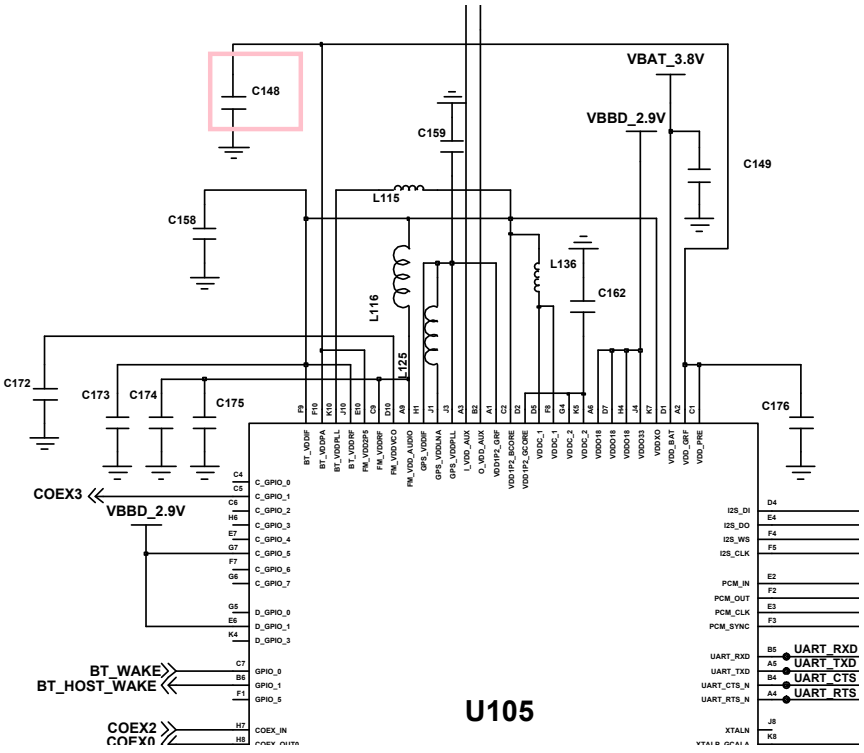


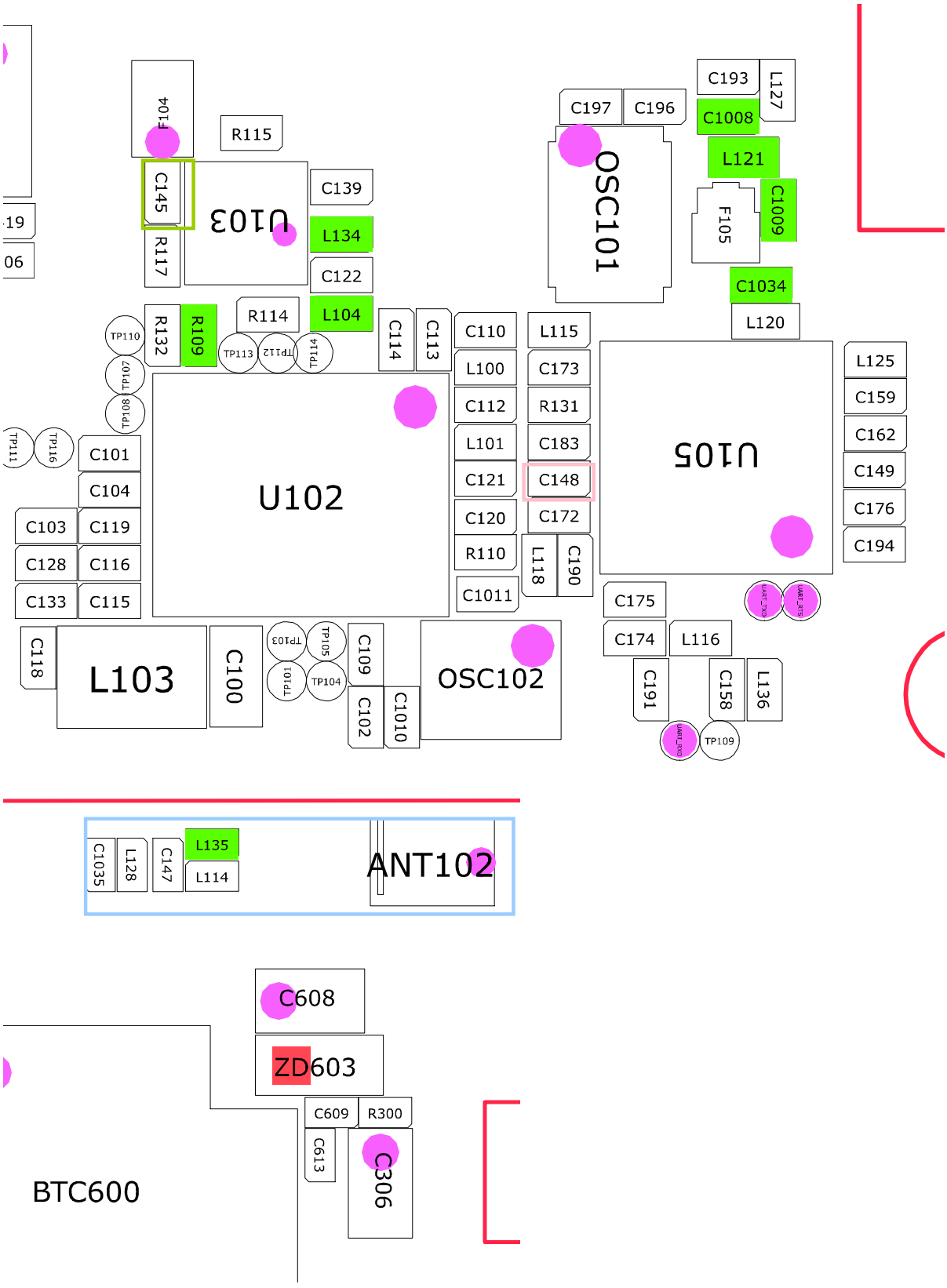


8-4-12. Bluetooth

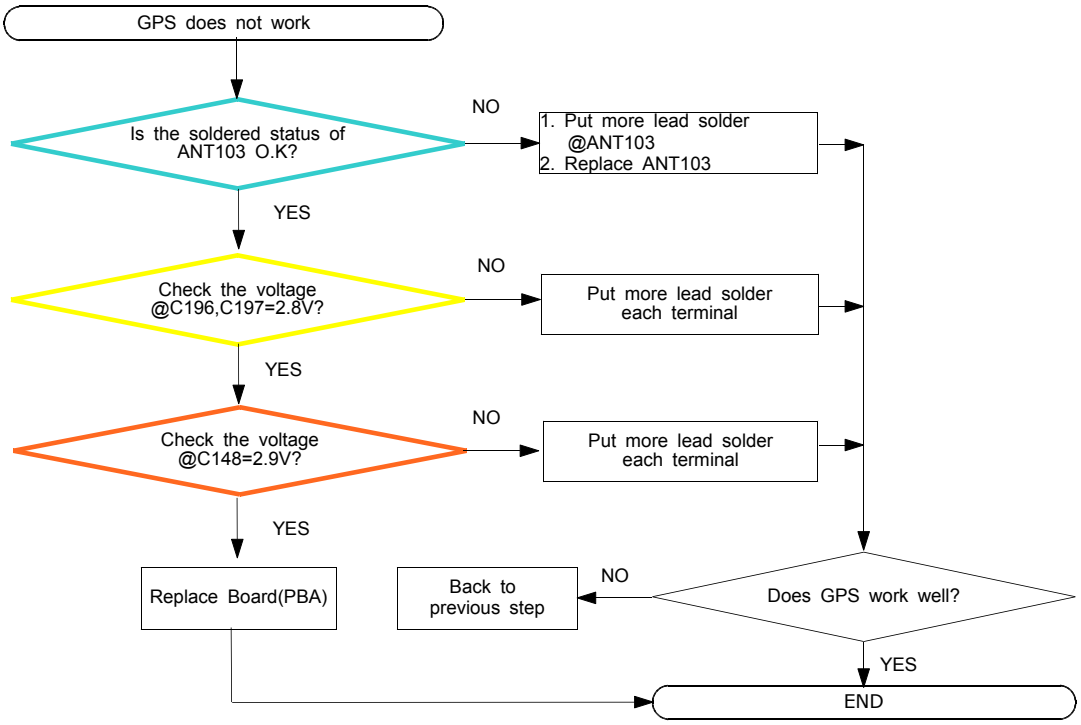


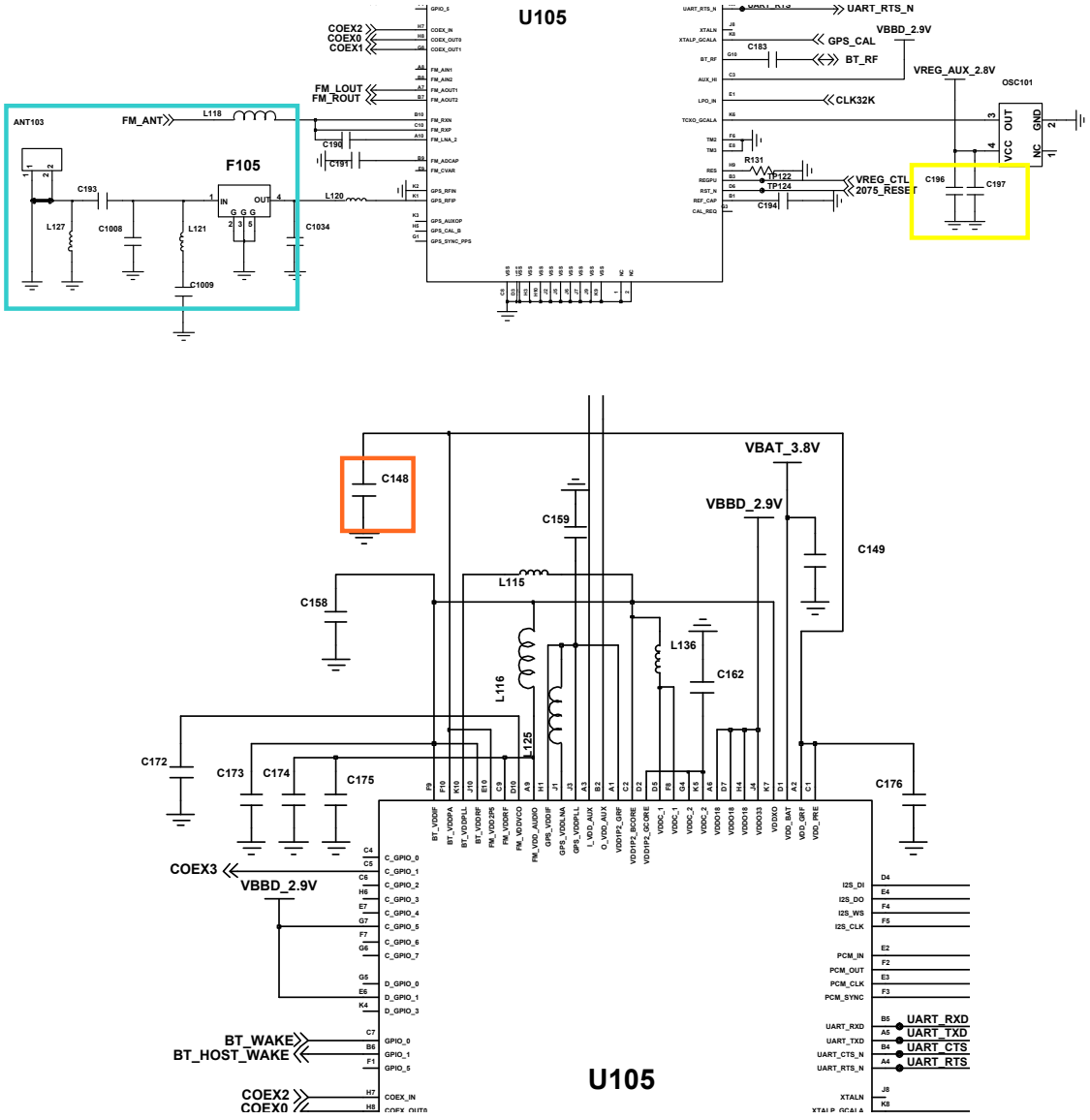


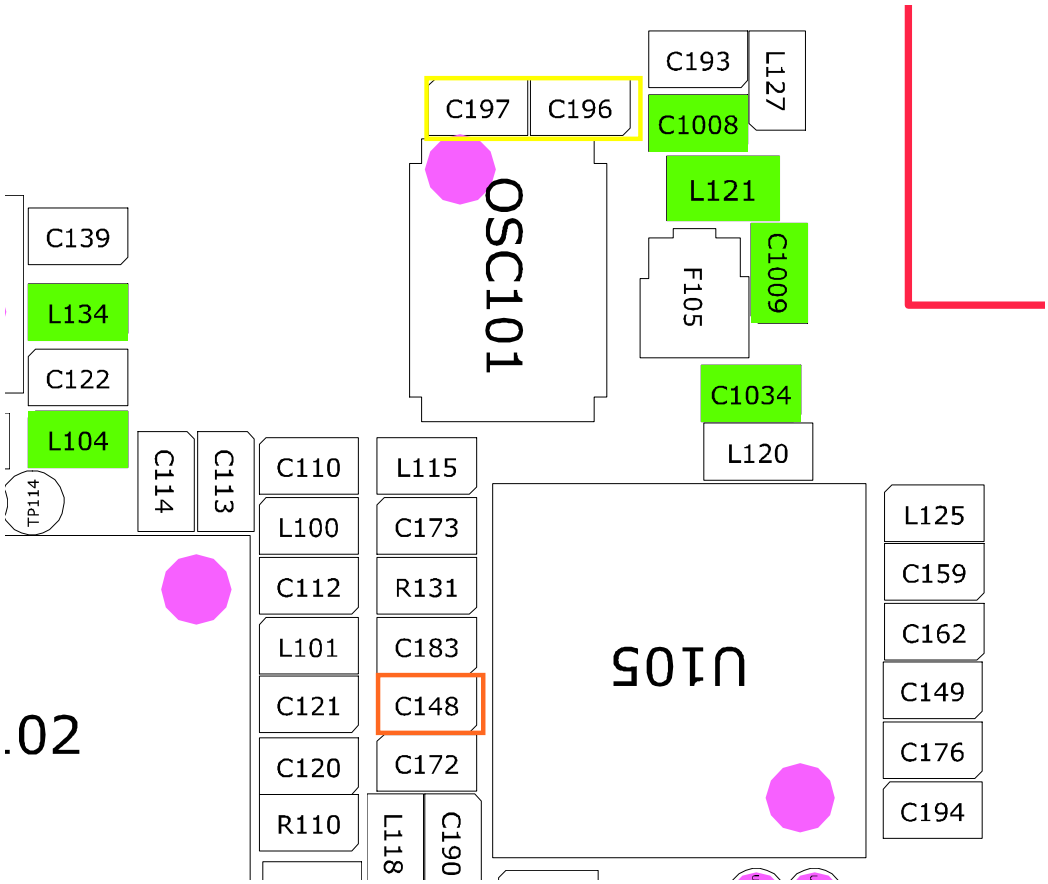


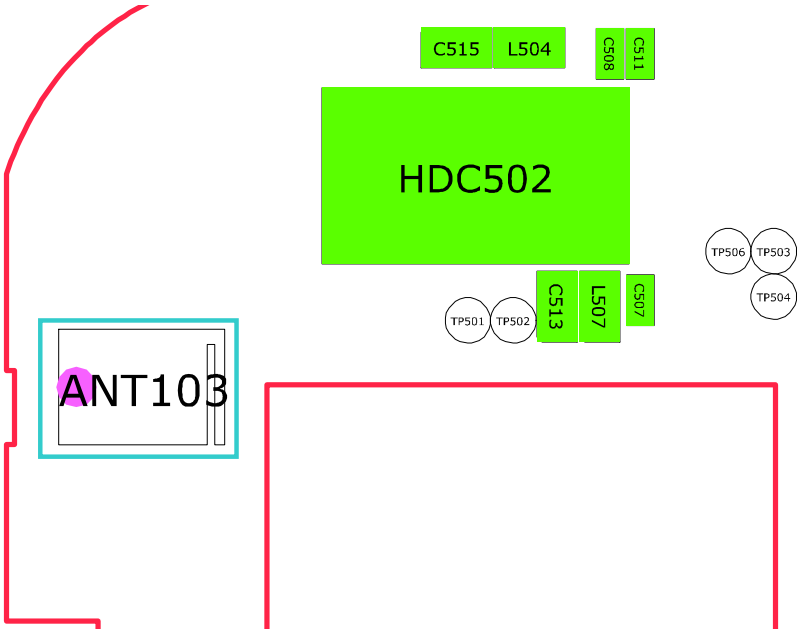


8-4-13. GPS

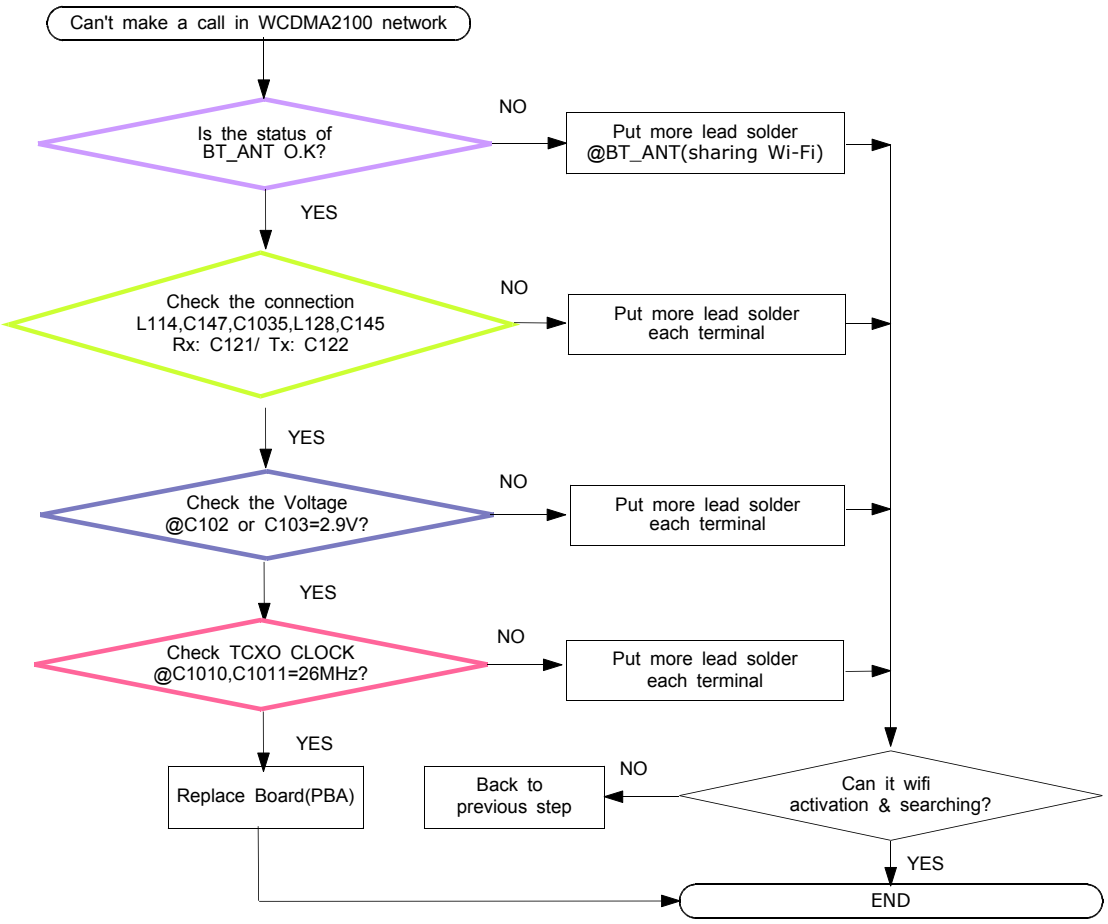


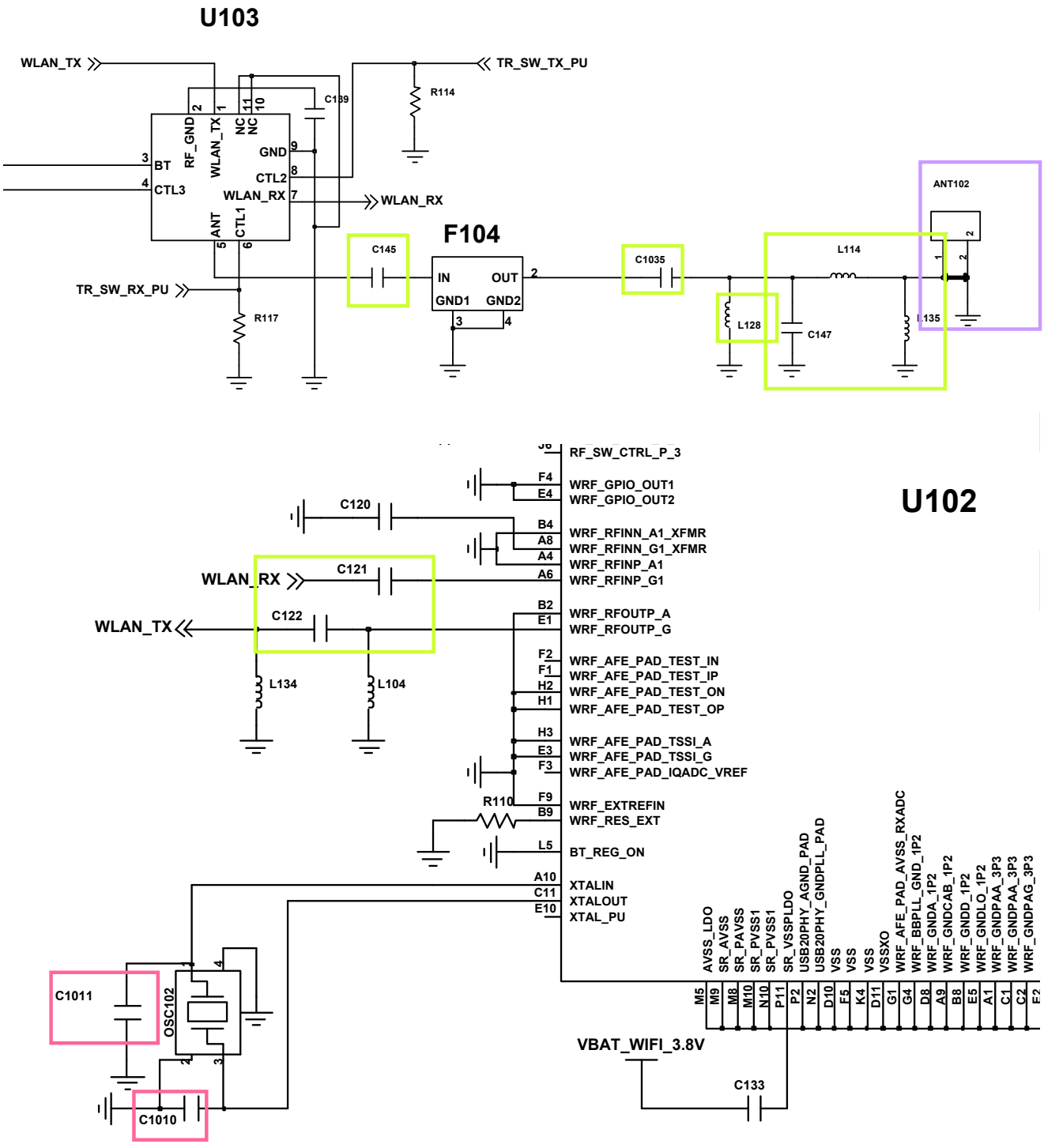


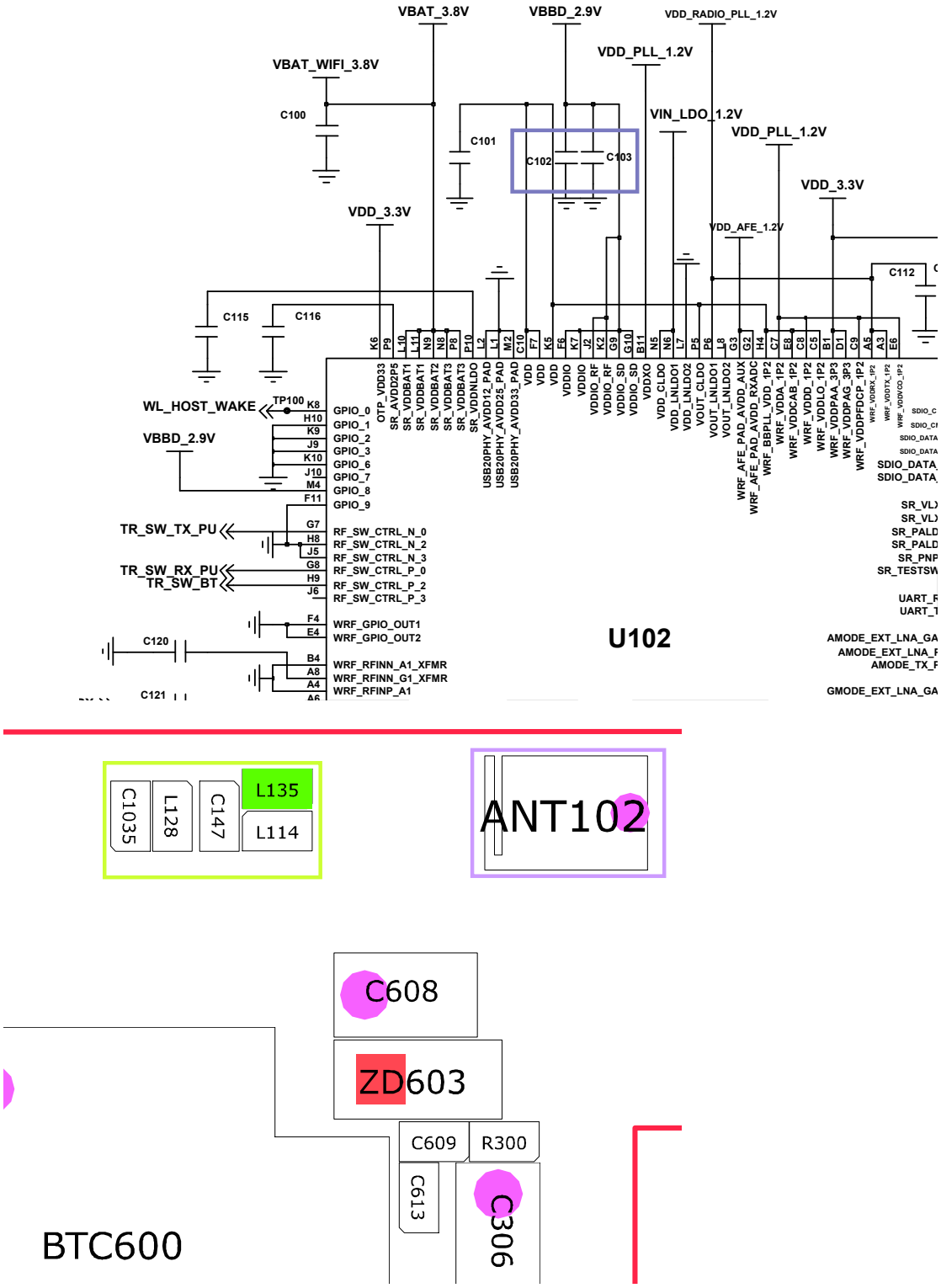


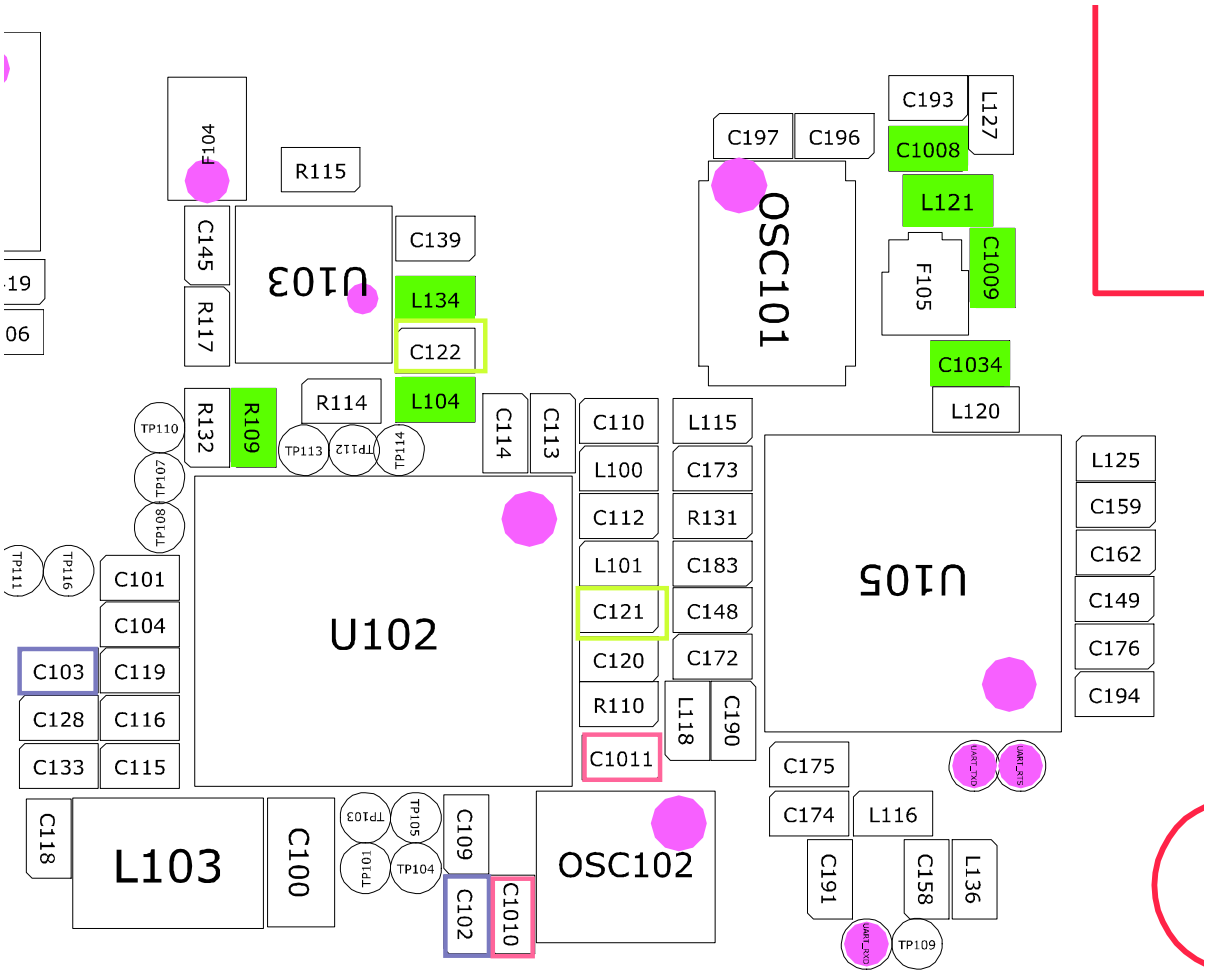


8-4-14 Wi-Fi Rx/ Tx









8-5. Service Schematics

- NC Point(Top View)

● : NC

U301

	1	2	3	4	5	6	7	8	9
A	●	·	·	·	·	·	·	·	●
B	·	·	·	·	·	·	·	·	·
C	·	·	·	·	·	·	·	·	·
D	·	·	·	·	·	·	·	·	·
E	·	·	·	·	·	·	·	·	·
F	·	·	·	·	·	·	·	·	·
G	·	·	·	·	·	·	·	·	·
H	·	·	·	·	·	·	·	·	·
J	●	·	·	·	·	·	·	·	●

UME200

	1	2	3	4	5	6	7	8	9
A	·	·	●	●	·	·	·	·	●
B	●	·	·	·	·	·	●	·	·
C	●	·	·	·	·	●	·	·	·
D	·	·	·	·	·	·	·	·	·
E	·	·	·	·	·	·	·	·	·
F	●	·	·	·	·	·	·	·	·
G	·	·	·	·	·	·	·	·	●
H	·	·	·	·	·	·	·	·	●
J	●	●	·	·	·	·	·	·	·
K	●	·	●	●	●	·	●	·	·
L	●	·	·	·	·	·	·	·	·
M	●	●	●	●	●	●	●	●	●

UCP200

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
A	·	·	●	●	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
B	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·
C	·	·																				·	·
D	·	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
E	·	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
F	·	·		·	·	·	·	●	·	·	·	·	·	·	·	·	·	·	·	·		·	·
G	·	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
H	·	·		·	·	·	·	·	·	·	·	·	·	·			·	·	·	·		·	·
J	·	·		·	·	·	·										·	·	·	·		·	·
K	·	·		·	·	·	·										·	·	·	·		·	·
L	·	·		·	·	·	·			·	·	·	·	·			·	·	·	·		·	·
M	·	·		·	·	·				·	·	·	·	·			·	·	·	·		·	·
N	·	·		·	·	·	·			·	·	·	·	·			·	·	·	·		·	·
P	·	·		·	·	·	·			·	·	·	·	·			·	·	·	·		·	·
R	·	·		·	·	·	·										·	·	·	·		·	·
T	·	·	●	·	·	·	·										·	·	·	·		·	·
U	·	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
V	·	·		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
W	·	●		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
Y	·	●		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·		·	·
AA	·	·	·																	·	·	·	·
AB	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	●	·	·	·	·	·	·
AC	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	●	·	·	·	·	·	·